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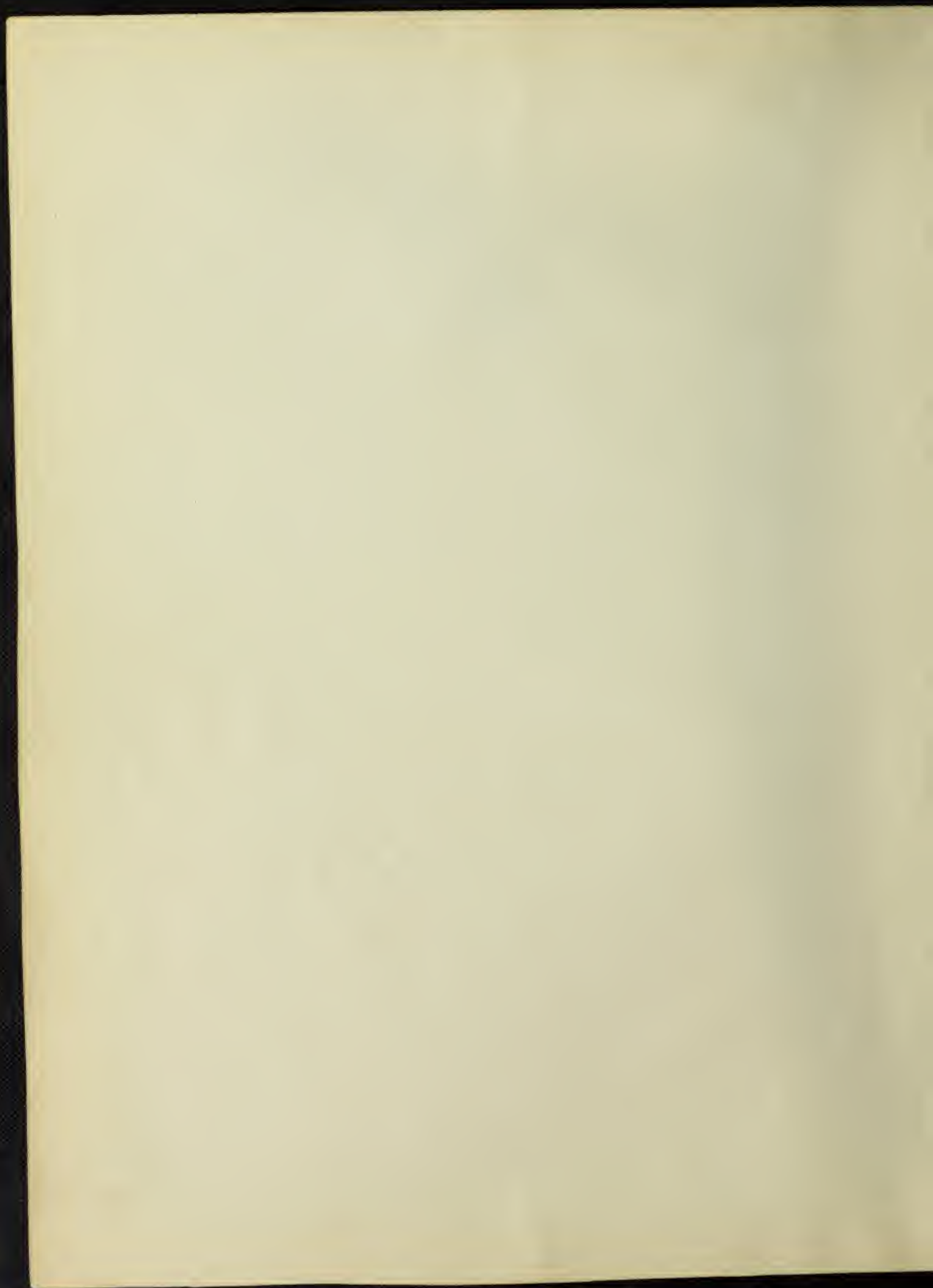
History of the Illinois Central System

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HISTORY OF THE ILLINOIS CENTRAL SYSTEM

BY

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C O N T E N T S.

over 1 to page

CHAPTER I.

ILLINOIS IN 1850.

	PAGE
Introduction	1
The interior of Illinois without natural means of good transportation	1
Illinois-Michigan Canal	2
Failure of Internal Improvement Plan of 1837	2
Springfield and Galena Railroads	3
Local highways inadequate	3
Interior counties isolated	4
Lack of transportation retards economic development of Illinois	5
Agricultural conditions backward	6
The raising of live stock profitable	7
Coal and lead mining unimportant	8
Illinois not an industrial state in 1850	9
Waterways afford cheap transportation to eastern and southern markets	10
Agricultural resources of Illinois unavailable on account of poor local transportation	10
A central railway necessary to the economic development of central Illinois	11

CHAPTER II.

THE LAND GRANT AND CHAPTER.

Inception of the Illinois Central project	12
Incorporation of Central Railroad in 1836	13
Central railroad backbone of Internal Improvement plan of 1837	14
Incorporation of Great Western Railway Company	16

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	PAGE
Incorporation of Cairo City and Canal Company	16
Mr. Holbrock attempts to construction Illinois Central through Great Western Railway	17
Failure of Great Western Railway	18
National aid necessary	18
Efforts of Breese to secure preemption grant	19
Breese prepared congress for later action on Illinois Central bills	20
Douglas enters the Senate	21
Douglas introduces bill for a railroad from Chicago to Cairo	21
The Senate passes Douglas's land grant bill	22
Defeat of land grant measure in the House	23
Reincorporation of the Great Western Railway Company	24
President and directors of Great Western make conditional surrender of act of Feb. 10, 1849	26
Aggressive action by Illinois delegation in support of a federal grant	27
Congress grants land to Illinois, Mississippi and Alabama for railroad from Chicago to Mobile	29
Terms of the act of September 20th	30
Great importance of the grant to Illinois	31
Four possible methods of constructing the railroad	32
State construction favored by many citizens	32
So-called bondholder's plan of January, 1850	33
The Great Western Railway Company attempts to secure the land grant in spite of the release	34
Suggested that road be built by private company other than the Great Western	35
Difficulty of selecting the route	35
Bitter fight in Illinois over matters connected with the land grant and the Great Western	36
The legislature fails to repeal charter of Great Western in first weeks of the session	38
Memorial presented by New York and Boston capitalists	39
Passage of charter not as easy as indicated by votes	40

CHAPTER III.

CONSTRUCTION OF THE CHARTER LINES.

Illinois Central most important enterprise of the time	41
Character of the promoters	42
Robert Rantoul	42
Robert Schuyler	42
William Osborne	44
Board of directors important factor in the early history of the company	44
Illinois Central organized on the nineteenth of March, 1851	45
Preparations for active construction	46

	PAGE
Colonel Mason elected chief engineer	46
Preliminary surveys and selection of the route	47
Rival routes for the railway	47
Surveys of the rival routes	48
Important considerations in deciding the route	49
Rivalry between cities	49
The route selected according to economic advantages	50
Final survey: Cost of construction reported to president	51
Railroad to be finished in time limit	52
The road to be built by contractors	52
Ground broken at Cairo and Chicago	53
Contracts let for divisions 1,2,6,8,9,10	53
Contracts let for divisions 3,4,5,7,8,11,12	54
Railroad conditions in Chicago demoralized	55
Michigan Central allies itself with Illinois Central	55
Rumors that Michigan Central will build the Illinois Central	56
Solicitor Bissel attempts to secure franchise from city of Chicago	57
Opposition to Illinois Central franchise	57
Illinois Central asks for entrance to city along the lake front	58
Contest between south and west sides over right of way along the lake shore	59
Veto of franchise by Mayor Gurnee	60
The directors refuse to accept second ordinance of January 2nd	60
Illinois Central built from lake Calumet to city limits without city ordinance	61
Difficulty at Grand Crossing	62
Chicago city council passes franchise satisfactory to the company	63
Terminal property of the Illinois Central of enormous value	63
Railroad built from the limits to the river	64
Extensive terminals provided at Chicago	65
Construction of the St. Charles Air Line Railway	66
Illinois Central secures right of way and local city franchises	66
Illinois Central construction not handicapped by financial restrictions	67
Financial difficulties with contractors	68
Cost of construction increased by high cost of labor and materials and surrender of contracts	70
Lack of supplies and good transportation chief difficulty in building the road	71
Illinois Central constructed within time limit	73
Much construction work done after the formal opening of the railroad in September, 1856	75
Construction and equipment in 1857 poor compared with present Illinois Central standards	75
When finished Illinois Central one of the best built railroads in the country	76

CHAPTER IV.

CONSTRUCTION AND DEVELOPMENT: 1857 TO 1870

	PAGE
Construction of the road merely the first step in the development of the Illinois Central System	78
Regular operating departments organized in 1855-56	79
Tariff matters in a chaotic condition	80
Panic and assignment of 1857 and crop failures arrest growth of the railroad until 1860	81
Business of the railroad interrupted by the commencement of the Civil War	82
Civil War develops Illinois and the Illinois Central	82
Civil War prevents the Illinois Central from developing along north and south lines as originally intended	83
Illinois Central makes important connections	83
Attempts to provide connection between the main line and the Chicago branch	84
Terre Haute, Alton and St. Louis forms connection between St. Louis and Illinois Central	86
Company commits serious mistake in not keeping possession of connecting lines	86
Lease of Dubuque and Sioux City Railroad	87
Lease of Iowa Falls and Sioux City a burden to the "Central"	87
No important financial responsibilities connected with the lease of the Iowa lines	88
The Illinois Central and the late front dispute	89
Slight improvement in permanent way and buildings	90
Large increase in the amount of rolling stock and marked improvements along certain lines	91
Operating methods do not overcome increased cost of fuel, labor and other expenses	92
Illinois Central management makes the most of the peculiar condition in which it is placed	92

CHAPTER V.

CONSTRUCTION AND DEVELOPMENT FROM 1857 to 1870--TRAFFIC

Economic isolation of Illinois in 1851	93
The Illinois Central railroad a north and south trade route	94
Peculiar location of the Illinois Central	95
Changed economic conditions in 1850 to 1870	96
Demands of North Atlantic states for western food stuffs	97
European demands for agricultural products of the west	100

PAGE

Southern cotton states not an important market for western grain after the war	101
Growth of urban population in Northwest and upper Mississippi valley states	102
Necessity for cheap transportation and improved agriculture	104
Importance of cheap transportation from the farm to the seaboard	104
Improved water transportation from Chicago to the Atlantic seaboard	105
Through railroads Chicago to New York	106
Reduced cost of carriage on railroads	107
Slight decrease in cost of carriage by Mississippi river to New Orleans	107
Improved local transportation in Illinois	109
Improved service and reduced cost of transportation on Illinois Central railroad: 1850 to 1870	110
Important reduction in lake-canal rates	111
All rail and rail water rates from Chicago to New York	114
Rates from central Illinois to New Orleans the same as to New York and other eastern ports	115
Ocean rates higher from New Orleans to Liverpool than from New York	117
Local rates on Illinois Central	118
Immigration into central west, 1850 to 1870, and relation to the Illinois Central	119
Settlement of central Illinois and counties along the Illinois Central	120
Improvement in Illinois agriculture	121
Traffic during the period of construction	122
Fluctuation in price of grain at Chicago favorable to the farmer	126
Increased agricultural production of territory dependent on the Illinois Central	127
Development of grain shipments to Chicago	129
Traffic agreements with various roads and lease of Dubuque and Sioux City lines in Iowa	131
Receipts of grain at Chicago over the Illinois Central increased rapidly 1856 to 1870	132
Relative growth of Illinois Central grain receipts during the Civil War	133
Grain shipments to Cairo unimportant except during the Civil War period	134
Conditions in live stock industry prevent its becoming extremely important	137
Lack of means of transporting live stock both help and hinder Illinois Central	138
Central counties of Illinois have large increase in live stock from 1850 to 1870	139

PAGE

Comparative importance of Illinois Central and other railroads in live stock receipts	141
Live stock movement an important part of Illinois Central traffic, 1850 to 1870	141
Truck farming and dairying unimportant	142
Fruit growing in southern Illinois important	134
Illinois Central develops agricultural interests of ter- ritory dependent on it and the territory develops the railroad	143
Lack of timber in central Illinois creates demand for wood from other states and for coal	144
Large amount of lumber forwarded from Chicago	145
High railroad charges prevent the general use of coal	147
Competition of wood and Ohio coal prevent the general use of Illinois coal before about 1865	148
Territory tributary to the Illinois Central primarily agricultural in character	149
Small shipments of manufactured goods	150
Increased movement of merchandise and sundries from 1856 to 1870	151
Growth of traffic as a whole very great from 1855 on	152
The great bulk of the traffic classed as local	153
Great bulk of the traffic passes through Chicago, Dunleith or Cairo	154
Despite preponderance of seasonal and agricultural products traffic fairly regular	155
Higher railway rates in 1870 than in 1860 justified by in- creased cost of carriage of freight	156
Charges on the Illinois Central low enough to move the business near the road	157
Illinois Central developed its territory as much as could have been expected	157
Passenger traffic of greater relative importance in 1850-1870 than at the present time	158
A number of important passenger connections	159
Illinois Central able to adapt itself to east and west movement of western produce	160

CHAPTER VI.

FINANCES OF CONSTRUCTION AND OPERATION: 1851-1870

Early estimates of cost of construction	161
Possible methods of financing construction	162
Importance of the federal grant	162
Financial program adopted by the directors and president on April 23rd, 1851	163

	PAGE
Estimated profits of the railroad	164
Preliminary engineering estimate	164
Mortgage of September 13th, 1851	165
First and second issues of stock; guarantee fund	166
Money market conditions in 1851	167
Four million loan of February, 1852	167
London six per cent loan of 1852	168
Stock and bond account June 1851 to August, 1853	169
Financial troubles and the Schuyler frauds	170
Influence of W. H. Osborne and settlement of the difficulties	171
Sale of construction bonds below par	172
Three million free land mortgage of 1855	173
Accumulation of floating debts	174
Assessment on capital stock, 1853 to 1856	174
Net receipts from sales of land and operation of road	175
Suspension of payment and assignment 1857	175
Financial expedients adopted to abolish the assignment	176
Assignment of 1857 removed in 1858	177
Retirement of short term notes and bonds	178
Dissatisfaction of English investors	178
Cancelled bond scrip dividend	179
Four per cent interest on full paid stock	179
Construction mortgage only lien on road	180
Criticism of capital expenses	181
Wisdom of capital expenses	183
Increased traffic necessitates increased capital expenditures	183
Permanent improvement expenditures a proper charge to capital	184
Permanent improvements 1857 to 1870 paid by shareholders	186
Terms of sale of construction bond land	187
Difficulties of land department in 1857-71	188
Effects of the Civil War on land department	189
Land Sales from 1865 to 1875	190
The Land Department from 1870 to 1875	191
Receipts from land grant used for general purposes and to cancel bonds	192
Sterling and currency loans	192
Purchase of construction bonds by currency redemption bonds	193
Purchase of construction bonds by sterling redemption bonds	194
Diversions of receipts from construction land to general uses of the company	194
Justification of the redemption bond issue	196
Construction bond loan expensive	196
Stock dividends of 1865 and 1868	197
The dividends justified	198
Gross earnings grew rapidly from 1856 to 1870	199
Both freight and passenger rates higher in 1870 than in 1857	200

Maintenance of way expenditures increased at a slower rate than gross receipts	201
Other fixed operating charges increase in proportion to increase in revenue	201
Maintenance of Equipment expenses increase at same rate as gross revenue	202
Cost of conducting transportation increased out of proportion to increase of general traffic	202
Operating expenditures, as a whole, slightly decrease as compared with gross revenue	203
Property kept in good condition from 1856 to 1862 despite low maintenance charges	204
Depreciation of property from 1863 to 1870 greater than in the earlier period; maintenance accounts include items properly belonging to capital	205
Net income from operation and land three times as great in 1870 as in 1856	207
Interest and other fixed charges decrease from 1856 to 1870	207
Semi-annual cash dividends of four per cent in 1863 and 1864; five per cent 1864 to 1875	208
Ten per cent dividends earned from 1865 to 1870, but surplus account too small	209
Illinois Central enters into no important agreements except with the Dub. & Sioux City and its subsidiary lines	210
Financial policy of the company in the construction and operation of the railroad proved to be entirely satisfactory	211

83

CHAPTER VII.

THE ILLINOIS CENTRAL IN 1870.

Illinois Central occupied unique position in 1870	214
Illinois Central also built to develop resources of central counties of Illinois	215
Construction of the railroad a success from the standpoint of the state, congress and the road	215
Construction of the railroad of direct financial benefit to the federal government	216
Construction of "Central" meant more than the payment of half a million ^{2.774} in taxes	217
Transformation of central Illinois in twenty years	218
Development of interior of Illinois due to the "Central"	218
Illinois Central plays an important part in the agricultural development of the country	219
Central Illinois becomes essential part of the economic organization of the country	219

Success of the Illinois Central based on land grant	220
Receipts from land grant made operation of road profitable	220
Illinois Central develops commerce of west along east and west lines	221
Development of east and west trunk lines the important feature of the decade ending with 1870	222
The Illinois Central in 1870	223
 Bibliography	 225
Appendix	233.

CHAPTER I.

ILLINOIS IN 1850.

It has been said, a history of the Illinois Central Railroad is a history of Illinois. ^{The project for} A railroad through the center of the state was one of the first ^{positions} projects for internal improvement ~~proposed~~ in the West; it was the most important part of the Illinois system of transportation of 1837; it was the first land grant railroad, and ^{between} its construction ^{and} in 1851 to 1857 opened up to settlers the rich interior counties of the state; and, when completed, it connected these agricultural counties with the remainder of the country, and made Illinois an essential part of the economic system of the United States.

The building of the Illinois Central Railroad and its subsequent growth was the natural result of economic and social conditions in the Middle-West which made necessary such a system of internal transportation. A glance at the map shows that, while Illinois is practically **THE INTERIOR OF ILLINOIS WITH-
OUT NATURAL
MEANS OF GOOD
TRANSPORTATION** encircled by natural waterways, the interior of the state, which is by far the most fertile portion, is without ^{water at} means of transportation, except that provided by man. ¹ Such counties as Coles, McLean, Macon, and Champaign, before the introduction of the railroad, were almost entirely isolated.

1 The territory tributary to parts of the Wankakee and Illinois rivers is an exception, but the ~~the~~ size of this territory is comparatively small.

In the early history of Illinois, various attempts had been made to provide a comprehensive system of internal transportation, but the results were of slight importance. The most ~~successful~~ of such undertakings was the Illinois ^{and} Michigan Canal from Chicago to La Salle. It ^{ILLINOIS} ^{MICHIGAN} ^{CANAL} was commenced about 1820, but financial difficulties prevented its completion until 1848. The canal was the most fortunate of all the enterprises started by the state, and for a number of years ^{it} was of great value. ^{nevertheless} ~~At the same time~~ it served only a limited area; its ~~width and depth~~ ^{capacity} prevented the ~~passage~~ ^{use} of large and economical canal boats; frequent breaks in the masonry or at the locks made navigation difficult even during the summer months; and, finally, ice rendered the canal useless during the winter season.¹

The Legislature, as well as private citizens, had made many efforts to supplement the Canal with a system of railroads. As early as 1837, the General Assembly had planned an extensive system of internal improvements, and, without accurate surveys or estimates, ten million ^{FAILURE OF INTERNAL IMPROVEMENT PLAN; 1837} dollars were appropriated to build twelve hundred miles of railroad, deepen the rivers of the state, and provide numerous turnpikes. Millions were borrowed, and expended with a lavish hand, but mismanagement, corruption, and the exhaustion of public credit at a time when all financial undertakings were paralyzed by the panic of 1837, brought the state to the verge of bankruptcy. A few surveys, a hundred miles of half-completed railway embankment, and one poorly constructed railroad, utterly useless for traffic, were the results of this chimerical experiment.²

¹ Chicago Daily Democrat, 1849-1851; references in Davidson and ^{two} A Complete History of Illinois, under Illinois-Michigan Canal; cf. Moses, Illinois Historical and Statistical, references in index to Illinois-Michigan Canal.
² Newton, Early Illinois Railway Legislation, chapter iv. Mr. Newton gives a bibliography on the subject, which may be used for further reading. Cf. Moses, Illinois Historical and Statistical, references in index to Internal Improvement Act.

Private construction of railroads was ^{some what} more successful. In the center of the state, the old Springfield and Meredosia Railroad, from Springfield to Jacksonville, constructed by the state in 1837, had been entirely rebuilt by private parties, under the name of the Springfield and Sangamon. In the north, the Galena and Chicago Union project had been revived, and the railroad extended to a point about ⁴ twenty miles west of Chicago. ¹ *Here lines at the least gave* ~~One freight and one passenger train a day in each direction was the best service the people received from these half-constructed lines, and the few thousand tons of wheat and merchandise carried~~ ^{by them} ~~on the cars~~ was a mere bagatelle, compared with the enormous quantities of freight transported from the neighboring counties a few years later. Schedule time was slow, ^{and} ~~actual time~~ ^{was even} ~~worse, while~~ ^{slower} rates were too high and service too poor to satisfy the necessities of even the adjoining territory. ⁵ ⁸

Aside from the few rivers, the lake, the canal, and the two short railroads, local transportation did not exist. Words are lacking to describe properly the wretched condition of Illinois highways in 1850. There were a few old corduroy roads and three or four government turnpikes, but they were short and ill-kept. Elsewhere former Indian LOCAL HIGH- trails or newly made section roads were the only semblances of highways that existed. In summer these roads were WAYS IN- little better than the surrounding prairies, often worse; in winter ADQUATE they were mere mud holes. Fortunate, indeed, was the traveller who was not compelled to help pry the coach out of the deep mud or wait until morning for a yoke of oxen to pull him out of some worse than ordinary

¹ Newton, Railway Legislation in Illinois, 1828 to 1870, pp. 29ff.
² Ibid; cf. Chicago Daily Democrat, 1849, to 1850.

slough. Mails were often delayed, and, during the winter storms and spring rains, ~~not only~~ farm houses, ^{and} but even large towns were completely isolated. Moreover, the state had shown itself utterly unable to remedy these evils. The statute books were ^{filled} ~~covered~~ with enactments declaring certain trails or mud roads public turnpikes, but even a sovereign state cannot legislate a mud hole into a turnpike. Charters, almost without number, were ^{tr}granted private corporations, but without tangible results of any importance.⁶ Local enterprise was equally fruitless, and the efforts of the counties to improve the public roads had generally failed.

This absence of good ^{transportation} ~~canal, railroad, and highway~~ facilities greatly retarded the economic development of central Illinois. The cost of carrying freight over ordinary country roads or even on well-built highways, ^{even} under the most favorable circumstances, is very great.⁷ On such roads as existed in Illinois in 1850 the ^eexpense of moving heavy freight for any distance was practically prohibitive, and ten to twenty miles was as far as grain or other bulky goods could be hauled with any degree of profit. As nearly all the ^{INTERIOR COUNTRIES ISOLATED} products of the interior counties of Illinois consisted of articles of small value compared with their bulk, ~~this meant that~~ an extensive network of railroads, or canals, was necessary to the proper economic development of the state. Instead of such a system of internal transportation, Illinois had less than a hundred and fifty miles of railroads and canals, and all portions of the state more than ten to twenty miles back from the railroads, the canal, the lake, and the ri-

⁶ ¹ Session Laws of Illinois, 1837-~~to~~ 1850.

⁷ ⁸ The cost of carrying a ton of freight from Buffalo to New York was \$100 by wagon, or about 20¢ per ton per mile. (Fogart, Economic History of the United States, p. 191). This was over good roads and the cost per ton per mile for carrying grain in Illinois must have averaged considerably more.

vers were practically isolated ~~from the remainder of the country.~~ The farmer living in the interior of the state could carry only a small part of his crop of wheat or corn to market to be exchanged for "store goods", and the total amount of grain received at Chicago, St. Louis, Peoria, and other centers which came from the central counties was insignificant.

The interior counties of Illinois, as stated above, were the most fertile parts of the state, and their isolation ~~from the rest of the country~~ had ^{retarding} ~~an important economic~~ influence on the economic development of the commonwealth. The earliest settlements, ^{in Illinois} were made by the French

at Cahokia and Kaskaskia near the Mississippi river, and until the end of the third decade nearly all subsequent settlements were also near the banks of the Ohio, the Mississippi, and Illinois rivers, ^{and} especially in the southern

counties. At that time the majority of the population were immigrants ^{or descendants of immigrants} from Kentucky, Tennessee, and other parts of the South, ⁸ ~~or their descendants.~~ ¹ Then from 1830 to 1850 there occurred a heavy immigration into the northern and central counties, but most of these new settlers were from the eastern states or Europe. ⁷ ⁸ By 1850 Illinois had a population of eight hundred and fifty thousand, and three fourths of the inhabitants were living north of Vandalia and were of northern or European stock. ¹⁰⁸ Furthermore, despite the absence of good transportation, three

⁸ ¹ Sixth census of the United States (1840); Greene, Government of Illinois, page 26; cf. various address of Mr. C.W. Alvord, of the University of Illinois, on this subject in publications of the Illinois State Historical Society. ⁶

⁹ ² Eighth census of the United States (1850).

³ ¹⁰ Seventh Census of the United States (1850), pp. 117, 118. The 30 counties south of Vandalia had a population of 219,863; the 69 counties north of Vandalia had 631,607. ^{THIRTY}

The foreign born population was as follows:--England, 18,628; Scotland, 4,661; Wales 572; Ireland, 27,786; British America, 10,699; Germany, 38,446; total, 110,593. Native born of foreign parentage not given.

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hundred and seventy five thousand people were in the thirty six counties which possessed neither a canal, a river nor a railroad, and the number living more than ten miles from such means of communication must have been considerably larger. But this population, was only a fraction of what could be supported in the same counties when railroads and good turnpikes were introduced.

The great bulk of the population in 1850 were engaged in agriculture, and the inadequate system of transportation had a depressing influence on that occupation which affected all other industries of the commonwealth. Farmers living near the waterways and railroads found good markets for their produce, but those not so favorably situated shipped little grain or meat outside the state. Only slight cultivation was necessary to have the rich prairie soil bring forth abundant crops, and the immediate needs of the farmer and his family were easily supplied.

AGRICULTURAL LABOR SAVING FARM MACHINERY WAS NOT IN GENERAL USE, AND CONDITIONS VERY BACKWARD the work of gathering the crops had to be performed by hand; with farm labor scarce and commanding high wages. As a result, there was little incentive to raise large crops, while the large amount of physical work involved made it impossible for the farmer to plant or gather more than a moderate yield. Shiftless methods of farming were the natural consequence and only a small portion of the arable land was under cultivation. Out of a total area of thirty five million acres, slightly over three million were planted in the five staples, wheat, corn, oats, rye, and potatoes. One third of the entire area, or eleven and a half million acres, was still unoccupied government land.

Seventh Census of the United States (1850). The 36 counties not crossed by the Illinois-Michigan canal, the Galena and Chicago Union and Springfield and Sangamon railroads, and the Illinois, Ohio and Mississippi rivers, had a population of 375,529 in 1850, or 44.1% of the total population.

Letter of Rantoul, Documents Relating to the Organization of the Illinois Central Railroad.

Ibid; seventh census of the United States, page 730.

and much of the remainder had never been broken by the plough.¹⁴¹ ~~At the~~
~~same time~~, the yield per acre was much less than could be expected from
the almost virgin soil of the prairies.¹⁵⁸ Cultivation of fruit and
vegetables was neglected, and three quarters of million dollars would
~~be an ample estimate of the value of~~
~~cover~~ all the orchard and market crops of the state.¹⁶⁸ The production
of the three leading grains, wheat, corn, and oats, was, of course,
large, but corn and oats constituted eighty-eight per cent of the yield
of these three crops, as against twelve per cent for wheat. However,
they were so bulky compared with their value ^{at market} that the entire production
of both corn and oats was of little importance, except for use on the
farm.¹⁷⁴ In general, prices were high, but the excessive cost of trans-
portation and the high great expense of gathering the crops resulting
from poor methods of farming, gave the farmer only a meagre profit.¹⁸⁵

Perhaps the most profitable form of agriculture at that time, was
the raising of live stock, especially swine. Through stock trains and
refrigerator cars did not exist, and all meat had to be salted or pickled
^{on} at or near the farm. ~~Of course~~, this seriously restricted the raising
of cattle and sheep, but did not affect the pork busi-
ness, which enjoyed a period of ~~comparative~~ prosperity
seldom equalled. Over two million swine were on the various farms and
something like a million were slaughtered each year.¹⁹⁸ A large part of
the corn crop was used for feeding cattle or hogs, ^{was this} and sent to the mar-
ket on "the hoof".²⁰⁷

- 14 4 --- Seventh United States Census (1850), page 730.
15 8 Compendium U.S. Census, 1850, page 170. Average yield in bushels:
per acre was: wheat, 11; rye, 14; corn, 33; oats, 29; barley, 40.
16 8 Seventh United States Census, Compendium, page 170. U.S. Census, 1850,
17 4 The cost of hauling a bushel of wheat was no greater than the cost
of hauling a bushel of corn, and yet the price of the former
averaged about three times the value of the latter.
18 5 Cf. chapter v, pages 137-142. U.S. 1850,
19 6 Compendium, Seventh United States Census, page 170.
20 7 Cf. chapter v, pages 137-142.

Mining was affected by lack of cheap transportation to an even greater extent than agriculture. In 1850 coal ~~mining~~^{mined} was ~~carried on~~ in all parts of the state, especially in the Danville, La Salle, Springfield, and Du Quoin districts. The mines at Danville, Du Quoin, and Springfield had been in operation for a comparatively short time and COAL & LEAD MINING UN-^{only} were of ²¹local importance. The La Salle field, being located on the Illinois ⁺Michigan canal, and thus possessing ⁺good transportation facilities, was the most important district in the state. However, it was handicapped by ^{the}high cost of mining, ^{which was}averaging about one dollar per ton more than in the Ohio mines, ^{this}which prevented it from supplying the Chicago market to any considerable extent.²² The Belleville mines were the oldest in the state, and produced nearly one half the coal ^{mined}raised in Illinois. On account of their proximity to St. Louis, ^{made}the mines ^{owners of this district}raised coal at a reasonable figure and were very profitable.²³ For some reason lead mining was of less importance in 1850 than ^{it had been}fifteen or twenty years earlier. The Galena district was the only part of the state where any considerable amount of lead was mined, and even there the yield was on the decrease.²⁴ Thus, both coal and lead mining were of comparatively little importance, and less than a thousand miners were employed in the entire state in 1850.²⁵

Illinois was primarily an agricultural state at the close of the fifth decade of the 19th century and a very small proportion of the population was engaged in ^{other}industrial pursuits. Slightly over 3100 dif-

J.W. Foster, Report on Mineral Lands on the Illinois Central R.R.

Ibid.

Ibid.; Ackerman, Early Illinois Railroads, page 17.

Vm. Spensley, The Mines of Jo Daviess County; Seventh Census, p. 115.

J.W. Foster, Report on Mineral Resources on the Illinois Central Railroad; Seventh Census, 1850, page 115. Cf. chapter V, page

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Railroad

1850

ferent establishments existed in the state, varying in size from a small village tannery or carpenter shop employing two or three men to large plants such as the Mc Cormick Reaper Company at Chicago.^{26, 1} Altogether, the industries of the state had a capital of six and a half

ILLINOIS NOT AN INDUSTRIAL STATE IN 1850 million dollars, employed a force of twelve thousand hands, and produced products valued at seventeen and a quarter millions.^{27, 2}

Packing, flouring mills, distilleries, breweries, iron and steel works, woolen mills, agricultural implement works, ship building plants, tanneries, ^{and} brick works were the leading industries.^{28, 3}

Outside of the villages ~~and~~ cities industrial conditions were backward, but not as primitive as many writers ^{indicate} ~~would have us believe~~. The log cabin and homespun were regarded as evidences of lack of progress, and the settlers, even on the isolated farms of the interior, ^{were} ~~was~~ supplied with many of the luxuries of civilized life.

The lack of internal transportation, with the accompanying isolation of the interior counties of the state, the backward agricultural conditions, and the unimportance of mining and manufacturing ^{was an effective} ~~had a direct~~ influence on the trade between Illinois and the eastern and southern states. In the period before the Civil war there were three principal markets for the surplus products of the Northwest: (1) the North Atlantic seaboard; (2) the lower Mississippi valley; ^{and} (3) western Europe. In 1850 there was good connection between Chicago or St. Louis and these markets. The great lakes and the Erie canal afforded western grain the cheapest means of inland transportation in the country.³ The

²⁶
1 Seventh Census of the United States, (1850), page 115.

²⁷
2 Ibid., cf. chapter v, pages 149-151.

²⁸
3 For a much more detailed description of the trade routes from Illinois east and south ~~cf. chapter v, pages 105-114.~~

Mississippi River likewise offered cheap transportation to the population along its banks. The introduction of the steamboat on both the

WATERWAYS AFFORD CHEAP TRANSPORTATION TO EASTERN AND SOUTHERN MARKETS

great lakes and the rivers permitted extensive reductions in the cost of carrying such bulky goods as grain and lumber. Consequently, farm products could be sent east or south over the waterways at reasonable charges after they had been brought to a lake or river port.

However, as already noted, the lack of roads, canals, and railroads prevented the movement of grain and pork from the central counties of Illinois to either the lake or the Mississippi River. Only the counties directly on the banks of the waterways could take advantage of the low charges from Chicago or St. Louis to New York or New Orleans. In

AGRICULTURAL RESOURCES OF ILLINOIS UNAVAILABLE ON ACCOUNT OF POOR LOCAL TRANSPORTATION

other words, the great agricultural resources of Illinois were unavailable. Illinois wheat, corn, oats, and live stock were shipped east or south in comparatively slight quantities. Although the state ranked first among all the states of the Union in the yield of grain, New York, Pennsylvania, Ohio, Indiana, Missouri, Kentucky and Tennessee each supplied a larger portion of the southern, eastern ^{or} and European demand than did Illinois. Out of a total production of seventy-seven million bushels of the three staples, oats, corn and wheat, less than three million bushels were forwarded from Chicago and the amount sent from Ohio or Mississippi river towns was not much larger.²⁹ If we compare the production and shipment of grain in 1850 with 1880, for instance, the difference shows ^{among other things} in a striking way the effects of poor transportation on the state. Against seven or eight million bushels shipped east or south in 1850 as twenty times as much was moved in the later year.

²⁹ Chicago Daily Democrat, Jan. 23, 1850; Seventh Census (1850).

With conditions as they were in the middle of the nineteenth century, the most important need of Illinois was some system of transportation which would connect the fertile interior counties with the ^A Great Lakes and the Mississippi ^L River. The development of a large portion of the state depended upon the construction of such a central rail- way necessary to the economic development of central Illinois means of communication. Many schemes came before the people, but the one that had the greatest possibilities and which appealed most strongly to the imagination of the citizens of the state was a central railroad from Galena to Cairo. ^{30X}

^{30X} The most important references used in this and subsequent chapters are found in the footnotes at the bottom of each page. At the end of chapter vii a critical bibliography of all authorities made use of in this monograph will be found. ^{30X} Many of the topics treated in chapter i are discussed at greater length in chapter v, and cross references are given.

CHAPTER II.

THE LAND GRANT AND CHARTER.

A great central highway connecting the northern and southern counties of Illinois has^d always been a favorite project with the legislatures and executives of the state. As early as 1830 Governor Coles suggested that "Lake Michigan...might easily be tapped and the water taken by canals not only into the Illinois, but on the dividing line between that river and the Wabash down through the center of the state."¹ Only two years later, Lieutenant Governor A. M. Jenkins proposed in the Senate that a survey be made for a central railroad from Cairo to Peru,² and, though somewhat premature, the proposal created considerable discussion, both in and out of the legislature. By 1835, the building of the "Central" had become one of the important issues in state politics. The project was ably advocated by such newspapers as the Sangamon Journal³ and also by a number of leading citizens, prominent among them being Sidney Breese, whose fifteen years of service in promoting the undertaking entitles him to be called the "Father of the Illinois Central Railroad."⁴

¹ Illinois Monthly Magazine, Vol. I, No. I, October, 1830.
² Newton, Early Railway Legislation in Illinois, page 7; Ackerman, Historical Sketch of the Illinois Central Railroad, pages 6, and 7.
³ Sangamon Journal, October 31st, 1835.
⁴ Cf. Appendix to Early History of Illinois by Sidney Breese. In this book Mr. Breese reviews his efforts in behalf of the Illinois Central Railroad.

With such support it was not long before definite measures were undertaken, and on January 18th, 1836, the Illinois legislature incorporated the ~~(Illinois)~~ Central Railroad Company to construct a railroad from "the mouth of the Chic.....to a point on the Illinois river at or near the termination of the Illinois ^{and} Michigan canal."¹ Fifty-nine incorporators were named, among them Governor Reynolds, Lieutenant Governors A. M. Jenkins and Pierre Menard, Judge Sidney Breese, Darius INCORPORATION B. Holbrook and Albert K. Snyder,⁶ ~~8~~ and a capital of OF CENTRAL RAILROAD; 1836 two and a half million dollars was authorized. / From the first, this road was regarded as a peculiar state institution, and lest its policy should be dominated by a foreign monopoly, provision was made that no person could subscribe to more than five shares of stock and that at least one fifth of the capital should be offered for sale in the state.⁷ Provision was also made that, whenever the company earned more than twelve per cent on the cost of construction for a period of ten years, the legislature could so reduce earnings and tolls for the next ten years that the earnings would not exceed that amount, reports being made to the state to show cost of construction and gross and net receipts.⁸ In return for this restriction on the powers of the company, the legislature inserted a clause in the charter agreeing not to incorporate any competitive railroad for a period of fifty years.⁹

⁵ 1. Laws of Illinois, (Session) 1835-1836, pp. 129ff.

² Ibid.

⁷ 8. Ibid., p. 134. (Session Laws of Illinois, 1835-1836.)

⁴ 9. Ibid., p. 133.

⁵ Ibid., section 6.

⁶ Among the incorporators was Mr. Holbrook and several other gentlemen connected with him in later enterprises, but as the company never commenced active construction work it, is impossible to say whether this company was controlled by Mr. Holbrook. As he was not a resident of Illinois and otherwise would not have been among the incorporators, the presumption is that he had a very important influence in the organization of the company under this act of 1836. X

However, the promoters of the railroad ^{had} chosen a most inopportune time for commencing this important undertaking. During the thirties the country was ~~deeply~~ agitated by one of those popular movements in favor of government aid to internal improvements, ~~so characteristic of the American people, and~~. In Illinois, after months of agitation, mass meetings, and conventions, the movement culminated in the celebrated Internal Improvement Act of 1837. ~~In response to an overwhelming popular~~

CENTRAL RAIL-
ROAD BACKBONE
OF INTERNAL
IMPROVEMENT
PLAN OF 1837

~~demand the legislature passed an act to build an exten-~~ ^{This act provided for}
sive network of railroads intersecting the state in all
directions. The backbone of the system was ^{to be} a central

railroad from Cairo northward, via Vandalia, Shelbyville, Decatur, Bloomington, and Savannah, to Galena, at ~~that~~ ^{the} time the most important city in the state.¹⁰ In addition there were several cross lines extending from the main stem to the important cities on the eastern or western boundaries. One of these branches from Shelbyville or Decatur to the state line, corresponded very closely to the Chicago branch under the act of 1851.¹¹ The entire system amounted to about twelve hundred miles, but the estimates as to cost of construction were surprisingly low. Three and a half million dollars was regarded as sufficient to build ^{the} four hundred and fifty miles of the main line, while the Shelbyville and Alton branches were to cost \$650,000 and \$600,000 respectively, or from seven to ten thousand dollars per mile;¹² less than one fourth what it cost the present company fifteen years later.¹³ A loan, based on the credit of the state, was to provide funds, while a board of seven commissioners was appointed to manage the enterprise,

¹⁰ Laws of Illinois, Session 1836-1837, p. 121; Newton, Early Rail-
way Legislation in Illinois, pp. 21 & 23.
¹¹ Ibid.
¹² Ibid.
¹³ Cf. chapter vi, ~~page 181~~.

during its construction and after completion.¹⁴ Immediately after the passage of the act, these commissioners commenced work, and for a while it seemed as if this colossal undertaking might be finished. Grading was commenced at Cairo, Galena, and intermediate points; tens of thousands of dollars ~~were~~ expended on the dikes and levees at Cairo; large quantities of rails were purchased; about forty miles of embankment north of Cairo ^{was} completed; and, altogether, something like a million dollars was expended on the central route and branches, although certainly not in the most effectual manner.¹⁵ But the task was entirely beyond the ability of the state; financial difficulties prevented the floating of the necessary bonds; ^{and} ~~while~~ extravagance, ^{corruption} graft, and mismanagement exhausted the money already procured. ^{The result was that} ~~and~~ a hundred miles of grading and a few thousand tons of iron were the only tangible results of this second attempt to construct a railroad through the center of Illinois.¹⁶

Even this failure did not deter the state or its citizens from endeavoring to complete the project, and on March 6th, 1843, only six years after the passage of the Internal Improvement Act, the legislature incorporated the Great Western Railway Company, INCORPORATION GREAT WESTERN RAILWAY CO. better known as the Holbrook Company.¹⁷ To understand this act it is necessary to go back six years to March 4th, 1837.

 Laws of Illinois, (Session) 1836-1837, p. 121.
 Chicago Daily Democrat, December 24, 1849. Editorial.
 Ibid.

Laws of Illinois, Session 1843-1844, pp. 199, 200; Newton, Early Railway Legislation in Illinois, p. 33; Ackerman, Early Illinois Railroads, p. 9.

It is interesting to note that the legislature which passed the Internal Improvement Act is regarded as the strongest legislature ever convened in Illinois, and contained such men as Lincoln, Logan, Douglas, Bissel, etc. The act was passed to a large extent through an arrangement with the Springfield delegation by which the state capital should go to that city in return for the passage of the act by their votes. Cf. chapters in Moses, Illinois Historical and Statistical, and Davidson and Stuve, History of Illinois, relating to the Internal Improvement Act.

On that date, the Cairo City and Canal Company was incorporated with power to hold real estate in Alexander County, especially the tract of land now included in the corporate limits of Cairo, and to carry on general industrial enterprises.¹⁸ Mr. Darius OF CAIRO CITY AND CANAL CO. B. Holbrook, of New York, one of the incorporators of the Central Railroad of 1836, was elected president, and for twenty years the enterprise was dominated by his masterful personality until the two became synonymous.¹⁹ During the prosperous period just before the panic the company borrowed between two and three million dollars, largely from English capitalists; purchased several thousand acres of land at the mouth of the Ohio river; established industries of all kinds; laid out an extensive city at what is now Cairo; protected it by embankments and levees; carried on a general mercantile business; and enacted ordinances for the government of the citizens of Cairo.²⁰ However, the resources of the company were not equal to the demands made upon it and the failure of the Internal Improvement policy in 1840, following closely after the severe panic of 1837, forced the enterprise into bankruptcy. English investors refused further financial support and the stoppage of work on the state railroad destroyed the undeveloped industries at Cairo. The directors neglected the undertaking; the property in and near Cairo was abandoned; and for a time the place was occupied only by squatters and disreputable characters from the river boats.²¹

- 18 X Laws of Illinois, Session 1836-1837, March 4, 1837.
 19 X In nearly all newspaper references to the Cairo City and Canal Company it is referred to as the Holbrook Company. Mr. Holbrook was regarded as an unscrupulous promoter and was thoroughly disliked throughout the state.
 20 X Anon., History of Cairo, Publications of the Cairo City and Canal Company; Henry Long, History and Prospects of Cairo. (See bibliography, page 230).
 21 X Ibid.
 { The powers granted the Cairo company by the legislature were almost unlimited and the company's acts were often in opposition to the general acts of the General Assembly.

Here

The extreme depression existing in Illinois after the panic of 1837 and the failure of the state policy prevented Mr. Holbrook from doing anything with the Cairo City and Canal Company until 1843. Realizing the possibilities of the "Central" railroad, he induced the legis-

MR. HOLBROOK ATTEMPTS TO CONSTRUCT ILLINOIS CENTRAL GREAT WESTERN RAILWAY

lature to pass the Great Western Railway Act of that year. According to the charter the president and directors of the Cairo City and Canal Company were

incorporated as the Great Western Railway Company and were given authority to construct a railway from Cairo to the Illinois ^{and} Michigan Canal. ²³

In many ways this act was quite favorable to the state. The otherwise worthless grading done in 1837 to 1840 was to be purchased at a fair valuation; twenty five per cent of the net receipts from operation, after a twelve per cent dividend had been paid on the stock, were to go to the state; and the legislature could alter the charter of both the Great Western ^{Company} and Cairo ~~and~~ City and Canal Companies after all the indebtedness of the former was paid. But, for half a dozen years the Cairo company had been known as a flagrant example of speculative and corrupt corporate management, and to turn over to such a company, without reasonable compensation or even adequate safeguards as to the completion of the work, the most important industrial enterprise within the state, was, to say the least, a short sighted policy. Moreover, a clause was inserted in the closing section of the act surrendering to the company any public lands which might come into the possession of the state of Illinois during the life of the charter. Not even a guarantee was demanded that such lands should be used for the construc-

²² Laws of Illinois, Session 1842 to 1843, pp. 199 ff.
Cf. with pp. 15, and 16. The terms of the act are peculiar and this provision making the directors of one company directors of another is typical of the loose charters granted by state legislatures before the Civil War. Contrast this charter with the charter of February 10, 1851.

tion of the railroad. This legislation shows the wretched financial condition ^{of} the state ~~was in~~ in 1843 and illustrates the lack of foresight characteristic of the General Assembly during the period.²³

For a time it seemed as if the company was seriously determined to proceed with the "Central" railroad. Large sums were borrowed and expended in finishing the original state surveys and completing the grading. Numerous buildings were erected at Cairo, and an extensive system of levees was planned and partially constructed.²⁴ But conditions were not favorable, and the company could not obtain capital to continue the work. Several millions had already been expended by the Cairo company without dividend paying results; all Illinois credit, both state and private, was under/suspicion on account of the partial repudiation of the state debt; and eastern and European capitalists refused to risk further investments in Illinois.²⁵ Lack of funds stopped all construction within a few months after the charter was secured and the directors finally gave up in despair. On March 3, 1845, with the consent of the company, the charter was repealed by special act of the legislature; all work done by the company reverted to the state;²⁶ and the third and most promising attempt to construct the "Central" railroad ended with heavy loss to the promoters and no profit to the state.

The failure of the Great Western Railway, following closely upon the disastrous Internal Improvement project of 1837-1840, made it evident to the legislature, as well as to local and eastern capitalists, that under the depressed condition of Illinois credit, the construction of this important and expensive railroad was an utter impossibility without substantial aid from the national govern-

NATIONAL
AID NE-
CESSARY

1 ²³ Laws of Illinois, Session 1843-1844, pp. 199ff, page 203, section 18.
2 ²⁴ Ackerman, Historical Sketch of the Illinois Central R.R., p.10.
3 ²⁵ Laws of Illinois, Session 1844-1845, March 3, 1845.
4 ²⁶ Ibid.

ment. As a result, the efforts of the state during the seven years from 1843 to 1850 were directed almost entirely towards obtaining such support.

Under these circumstances, the people of the state considered themselves fortunate in having elected to the Senate of the United States, in 1843, Judge Sidney Breese, who was regarded as the most enthusiastic advocate of the "Central". On December 23rd, 1843, only a few days after being sworn in as senator, he introduced into Congress

EFFORTS OF BREESE TO SECURE PRE-EMPTION GRANT a memorial of the Great Western company praying for pre-emption rights to a portion of the public lands through which the proposed road would run. Although ~~the only~~ ^{only} profit to the railroad could come from selling the land at more than a dollar and a quarter an acre, the pre-emption price, the measure met with such indifference and opposition that the committee on public lands, to which the memorial was referred, refused to report a bill. ²⁷

Two years later, Judge Breese was appointed chairman of the Committee on Public Lands and, with the additional prestige and influence of that position, he introduced a bill, in 1846, granting alternate sections of public land to the Northern Cross and Central railroads of Illinois. ²⁸ Breese himself had little faith in a direct grant of land and did not push the project vigorously. As chairman of the committee on public lands, to which all these bills were referred, he was able to make a strong report in favor of ~~the bill~~ ^{his proposal}, but, for some reason, the ~~bill~~ ^{bill} grant was not brought up after leaving the committee. ²⁹ Undismayed by his previous lack of success, he again introduced, at the second session

Sen. J. Journal of the United States Senate, December 23, 1843; Ackerman, Historical Sketch of the Illinois Central Railroad, p. 10. Congressional Globe, (1st sess., 29th Cong.), p. 208; Sanborn, Congressional grants of Land in Aid of Railways, p. 25. Ibid.

Cf. page 17., line 22-ff. As Senator Breese was elected at the session of the legislature which passed the Great Western Act of (continued page 20)

of the ^tTwenty-ninth Congress, his favorite project of a preemption grant. ³⁰The Committee on Public Lands advocated the measure in a vigorous report, which ranks among the ablest congressional documents on the land question. The arguments advanced in favor of the bills were convincing, and ^{Senator} Breese followed up his report by active work on the floor of the Senate. His persistent and energetic support of the plan had its influence, and the Senate finally passed his measure. ³¹The bill went to the House, but none of the Illinois delegation took an active interest in it, and ^{and there is no evidence in the House records that} from the records of that body, there was no ³²attempt to secure its passage. ³³

When the condition of political affairs at the time is considered it is evident that Breese was contending against almost insurmountable difficulties, and, although his proposals met with little success, he must be given great credit for accustoming the members of Congress to the novel project of granting public land to assist, directly or indirectly, in the construction of private railroads. His reports from the Committee on Public Lands were clear and logical statements of the ^{arguments} reasons in favor of congressional aid. He lacked, however, the political prestige and aggressive personality necessary to secure the assent of his colleagues to ^{such} an unusual policy. He also failed in securing the support of the Illinois delegation in the House, and complete success was, thus, almost impossible. ³³

- ³⁰ Congressional Globe, (2nd sess., 29th Cong.) Sanborn, p.26.
³¹ Ibid., Ackerman, Historical Sketch of the Illinois Central, p.10
³² Ibid.
³³ Cf. correspondence between Douglas and Breese in Appendix, Early History of Illinois, by Sidney Breese.

(Continued) March 6th, 1845, containing the provision turning over to that company any federal lands the state might receive, and immediately after taking his seat in the Senate introduced a bill granting a preemption right to that company it looks as if there might have been some understanding between him and the Cairo Company. Breese was always a warm supporter of the Cairo Company. ³⁴

Note - page 21. Note - continued page 21.

Fortunately for the Central project, Stephen A. Douglas entered the United States Senate in 1847, and within a short time became the recognized leader of the dominant party in that body. Like Breese he was an ardent advocate of a railroad through central Illinois, and believed ^{that} the federal government should assist in its construction. But the two men differed in the methods to be adopted by the government. Breese advocated ~~merely~~ ^{the conferring of the} a right of preemption, ^{upon} although to a private company. Douglas favored a direct grant of land, but to the state of Illinois, not ^{to} a private corporation. In this position he was ably seconded by the Illinois delegation in the House of Representatives. ³⁴

At the commencement of the long session of 1847-8, ^{each} both senators introduced ^a measures in accordance with ^{his} their respective views. Breese presented his previous plan for a preemption right to the Cairo company for a railroad from Cairo to Galena. ³⁵ On the other hand his colleague advocated a direct grant of land to the state of Illinois to be used in building a first class railroad from Cairo to Galena, as in Breese's plan. In addition he proposed that there be a branch from this "main" line to Chicago; ³⁶ in effect this meant a trunk line from the great lakes at Chicago to the Mississippi

³⁴ Congressional Globe, 2nd Sess. (29th Congress).

³⁵ Ibid., 1st sess. 30th Congress.

³⁶ Ibid.

³⁴ (Continued from page 20) As stated on a previous page, ^{which} The Cairo City and Canal Company was very unpopular in Illinois, especially among the people. From the act of 1836 on Judge Breese was an outspoken advocate of this company and believed the railroad this by built by the Great Western company. He feared a direct grant of land would be used by the legislature to renew the Internal Improvement policy of 1837, and for that reason, together with his general support of the Holbrook corporations, he endeavored to get a right of preemption for the Great Western. The Illinois members of the house desired the construction of the central railroad, but not under the direction of Mr. Holbrook. There are no grounds to question Mr. Breese's good faith in his advocacy of the Holbrook companies.

River at Cairo. ^{By his plan} At the same time (the grant was to go direct to the state of Illinois and) whatever profit ^{in increased value of} would come from the land would inure to the benefit of the state, not to the advantage of a private corporation. The whole plan was one of those ^{shrewd schemes} characteristically ~~able~~ strokes of Douglas ^{was famous}. From an ill-fated and ill-managed local project of one of the less important western states the Illinois Central became a national enterprise, which would benefit the entire country, ~~not~~ not merely a few counties in Illinois.)

In deference to his colleague, Judge Breese consented to postpone his preemption bill, though he still kept it on the calendar that, as he said, he might call it up after the failure of the land grant measure. ³⁷ The bill introduced by Senator Douglas was reported favorably from the Committee on Public Lands, and was made a special order on May 3rd, 1848. From that time its passage through the Senate was comparatively easy. In general the measure was supported by members from the western states and opposed by representatives of the eastern and southern states. ³⁸ Although introduced by the Democratic leader of the Senate, the land grant received much better support from the Whigs than from their opponents. As dis-

³⁷ Breese to Douglas, January 5th, 1850, quoted in Illinois State Journal, February 6th, 1851; Sanborn, Congressional grants of Land in Aid of Railways, page 26.
³⁸ Congressional Globe, (1 sess.) 50th Cong., p. 514; Appendix, pp. 535, 536, 537; Sanborn, Congressional Grants of Land in Aid of Railways, pp. 26 ff. The vote on the measure in the House and Senate was distributed as follows:

	FOR		AGAINST	
	SENATE	HOUSE	SENATE	HOUSE
New England	2	10	3	5
Middle	2	25	1	22
South	2	7	3	31
Gulf	4	3	3	4
West (land)	10	27	0	9
West (non-land)	4	1	1	8
TOTAL	24	73	11	79
Democrat	14	30	10	42
Whig	10	43	1	37

tribution of the public lands in this way was distinctly a Whig policy, it was natural that the minority should favor the bill. Moreover, most of the unoccupied government land was in the West, and representatives of states where the amount was large aided the measure ^{on the assumption that} its success ^{might mean} a similar grant to them later on. ~~For the same general reasons,~~ ^{likewise} members from the eastern states opposed this new policy on the ground that the whole nation ~~(and not a few states)~~ ^{share the} should ^{of} benefit ^{the} the western lands. Senators and representatives from the southern and gulf states were strict constructionists and opposed Congressional action which would assist either the north or west at the expense of the south. Their position ^{was} entirely consistent with the immediate interests of their constituency. After the fashion of the time, most of the speeches defended or opposed the land grant on constitutional grounds, the main point of dispute being whether Congress had a constitutional right to give away the national lands in aid of internal improvements. ³⁹ 4

With the members of Congress divided along the lines indicated above, the success of the bill depended upon the relative strength of the West as opposed to the East and South. Although the bulk of the population was in the eastern and southern states the number of western states was as large as ^{the number} of eastern states. ^{all} As ~~both~~ states had an equal representation in the Senate the passage of the bill was comparatively easy, the final vote standing twenty-four for, as ⁴⁰ against eleven opposed to the bill. In the House, however, ^{where} representation was in proportion to population ~~and~~ the large middle and southern states were able to defeat the act. The vote was close, and had some of the western members supported the grant more

³⁹ Congressional Globe, 1st sess. 30th Cong. Appendix. The views of the members of Congress are gathered from speeches in the Globe.
⁴⁰ Congressional Globe, 1st sess., 30th Cong., p. 314. Of. Note 2, page 22.

vigorously it would probably have been passed. As it was, the majority against it was only seven.^{x1} In accordance with a previous understanding, Judge Breese again introduced ^{his} ~~his~~ preemption bill at the short session, and, though not in conformity with the views of Douglas, the latter, as a personal and political favor to his colleague, allowed it to pass ⁱⁿ the Senate, with the tacit understanding that it was to be rejected in the House of Representatives.^{x2}

In the six years since Judge Breese introduced his first preemptionⁿ bill, sentiment in both the Senate and House had become quite favorable to some kind of a land grant or preemption right in aid of the Illinois Central Railroad. Any measure would undoubtedly be of considerable value to the state of Illinois or to private parties who might build the road, and the Cairo City and Canal Company determined to make use of the apparently favorable conditions. Accordingly, after the failure of the first land grant bill and ^{probably} in anticipation of greater success at the next session, the Cairo City and Canal Company petitioned the legislature for a renewal of their previous rights, which had been repealed by the act of March 3rd, 1845.^{x3} Although the Holbrook companies generally were disliked throughout the state, they represented the wealthiest aggregation of capital in Illinois, and apparently were the best able to complete the Illinois Central railroad. In recognition of this fact the legislature on February 10th, 1849, reincorporated the Great Western Railway Com-^{x4}

--- Ho. J. ---

^{x1} Cf. ~~Page~~ 22, note 2. The bill was refused a third reading by vote of 74-78 (73-79?). ~~Journal House of Representatives~~, 30th Cong., 1st sess., p. 1270; Congressional Globe, 1st sess., 30th Cong., p. 1071; Sanborn, Congressional Grants of Land in Aid of Railways, pp. 29, 30.

^{x2} Douglas to Breese, letter quoted in Illinois State Journal, Feb. 6, 1851.

^{x3} Cf. page 18.

^{x4} Laws of Illinois, Session 1849-50, February 10, 1849.

Cf. correspondence between Breese and Douglas in Appendix to Breese's Early History of Illinois.

pany, with all its former privileges, and, in addition, gave it outright the remains of the old state surveys, gradings, and embankments, and a two hundred ^{feet wide} foot right of way from Cairo to Galena. ^{the} The surprising feature of the act is that the legislature included in the charter the clause surrendering to the company whatever lands the federal government should grant the state. No restriction whatever was placed on the use of these lands, and, so far as the charter was concerned, these lands, once in the possession of the corporation, might have been used for the personal advantage of the president or directors. Moreover, the only condition imposed upon the company in return for the charter was that it should spend at least \$200,000 each year until the road was completed, and even this ^{condition} was vague and ill defined. ⁴⁵

⁴⁴ ⁴⁵ Laws of Illinois, Session 1849-50, February 10, 1849.

The provision in the acts of 1843 and 1849, granting the Great Western Railroad whatever federal lands should come into the possession of the state, is one of the most peculiar ever passed by an Illinois legislature. In 1843 there was little prospect that the national government would ever turn over lands to Illinois to aid in railroad construction, but in 1849 several bills had passed the Senate and one had passed the House giving either preemption or direct grants to Illinois, and it was considered almost certain the 31st Congress would pass the desired legislation. It is very probable that the clause was inserted in both acts as a "joker" and escaped the notice of the members. At the time charters were granted giving private companies almost unlimited powers and evidently this is an example.

At the same time it is very likely that the Cairo City and Canal Company resorted to underhanded methods to secure the insertion of this provision. From the bitter criticism of the provision in 1849 and 1850 after the passage of the federal act, especially in the Springfield Register and Journal, two of the leading papers in the state, it is certain this clause could not have been inserted with the open approval of the legislature. The advantage to the company from such a provision is too obvious to require further reasons in defence of the attitude of the company.

The action of the Great Western Railroad indicates that it was incorporated with the object of securing the land grant. From its incorporation until the passage of the federal land grant the company did practically nothing. Then with the passage of the Act of September 20th several thousand dollars was expended in and near Cairo, evidently to fulfill the legal requirements of the charter. For a full discussion of this matter, the reader is referred to the files of the Journal and Register, Springfield, during the Fall and Winter of 1849. (Illinois Weekly State Journal, October 16th, 1850.)

With this remarkable enactment of the Illinois legislature before them, it was only natural that members of Congress should hesitate to give to ^{Illinois} ~~that state~~ public lands which might be turned over to a speculative private corporation without materially furthering the "Central" railroad. No one saw this more clearly than Senator Douglas, and, even before the first session of the thirty-first Congress opened, he made

PRESIDENT AND DIRECTORS OF GREAT WESTERN MAKE CONDITIONAL SURRENDER OF ACT OF FEB. 10, 1849. vigorous attempts to obtain a repeal of the obnoxious features of the charter, ^{He was not} but at first without success. ^{ful} His colleagues at Washington and prominent citizens of the state assisted him and just before Congress convened he was able to induce the President and directors of the Cairo City and Canal Company to execute a release of the charter of the Great Western Railroad Company. The surrender was only conditional, however, and the Cairo Company insisted that the release should be accepted at the next session of the legislature and that another company be immediately incorporated to carry on the project. ^{x6}

The Great Western tangle having been straightened out, the Illinois delegation in Congress was in a position to renew their efforts in behalf of the Illinois Central grant. At the previous election several changes were made in the personnel of the delegation, which gave new strength to the advocates of a direct grant. In the Senate Judge

^{x6} Illinois State Journal, October 13, 1850.

There was a very bitter fight in Illinois over the release of the charter of the Great Western Company. The Cairo Company was, of course, reluctant to surrender the charter, and they were supported by many political opponents of Douglas. The company obtained considerable aid from politicians in the southern part of the state, but was almost unanimously opposed by the central and northern parts of the state. The two Springfield newspapers were the most bitter opponents of the Hobrook company. Cf. the conflict over the passage of the repeal act of Feb. 10, 1851. In October, 1850, Mr. Holbrook, as President of the Company, executed a release, but Mr. Douglas did not accept it. Cf. correspondence between Breese and Douglas, in Appendix to Breese's Early History of Illinois.

Breese was succeeded by General Shields, and the new representatives were in sympathy with the plans of Douglas.⁴⁸ Judge Douglas was an able politician, as well as a statesman of national prominence, and the experience of the previous session showed the necessity of aggressive action. As a matter of course, the friends of the land grant, both in and out of Congress, secured a large number of memorials and petitions requesting definite action by the federal government.⁴⁸ In addition, Senator Douglas resorted to various political bargains to insure complete success of his policy. In the previous session he ^{had} added ^{to his plan} a branch from the ^{proposed} main line of the railroad to Chicago, and thus ~~removed~~ made the enterprise one which appealed to the interests of many eastern representatives.⁴⁹ In his plans for the 31st Congress he made the railroad even more comprehensive. A similar He extended the proposed grant to the Mobile and Ohio Railroad, ^{which was} then endeavoring to get a foothold in southern Alabama, and to certain other southern roads. A trunk line from Chicago to Mobile was a project which appealed to the imagination of the entire Mississippi Valley; even the strict constructionists had to admit it was a matter of more than state importance. At the same time, the southern part of the plan removed the opposition of the gulf states and secured the active support of certain northern members who were very much interested in the Mobile and Ohio Railroad.⁵⁰ He also removed the

- * 1 ⁴⁸ Ackerman, Historical Sketch of the Illinois Central Railroad, p.17.
 * 2 ⁴⁹ Wentworth, Congressional Reminiscences, (Fergus Historical Series),
 * 3 ⁵⁰ Cf. pages 21 to 23. [See note on p. 28 under #21] →
 * 4 ⁵⁰ Sanborn, Congressional Grants of Land in Aid of Railways, p.31;
 Breese to Douglas, Illinois State Journal, Feb. 6, 1851; Wentworth
 Congressional Reminiscences, p. 4.
 * 5 ⁴⁷ General Shields was a warm personal friend of Senator Douglas,
 while Senator Breese was not always on intimate terms with him.
 Shields was also one of the most popular politicians in Illinois.
 Among the leading supporters of the measure were Representatives
 Bissell, Baker, and Wentworth of Illinois.
 (Continued page 28)

opposition of certain New England and Pennsylvania Congressmen by a compromise on the tariff. Douglas cared very little about new tariff legislation, while the eastern representatives were not interested in the land grant, but did desire a change in the tariff. A compromise was easy and the eastern Congressmen agreed to support the Illinois Central measure in return for active efforts on the part of the western members in favor of a change of tariff. ⁵¹ ~~51~~ A third agreement, though of less importance than the other two, was arranged late in the session by which Dunleith, opposite Dubuque, Iowa, instead of Galena, became the northern terminus of the proposed road. ⁵² ~~52~~ These various agreements and compromises materially strengthened the Illinois delegation ^{and} made the passage of the land grant act a practical certainty.

⁴⁵⁷ Wentworth, (Congressional Reminiscences (Fergus Historical Series))
²⁵² Ackerman, Historical Sketch of the Illinois Central Railroad,
 p. 17.

⁴⁹ (Continued) The addition of the Chicago branch is interesting as showing the increased importance of northern Illinois and the district around Chicago. In the early plans the northeastern part of the state was neglected and this addition by Douglas is a recognition of the changes which took place in the previous fifteen years. Senator Douglas was accused of making the change in order to increase the value of Chicago real estate, in which he was deeply interested. There may be some truth in the statement, but it also shows that he recognized the future importance of Chicago. The entire success of the Illinois Central has depended upon the Chicago branch, and if this extension had not been made the road would have become a merely local undertaking.

Among the eastern members secured by this agreement were Daniel Webster and Mr. Ashmun of Massachusetts. It is very likely that the Boston and New York capitalists who built the Illinois Central were deeply interested in the success of the land grant act. Mr. Rantoul, one of the leading promoters, was a close personal friend of the two gentlemen named above, and succeeded Mr. Webster in the Senate. A Mr. Ashmun was also interested in the Illinois Central, and the town of that name on the charter lines is named after him. Senator Dodge, of Iowa, is credited with being the originator of this extension. The change was bitterly opposed by Galena and was instrumental in causing the decline of that city. Two railroads were being projected from Dubuque in 1849, one of them, the present Dubuque & Sioux City Railroad, and the extension to Dunleith, made possible a through line from Chicago and Cairo to Central Iowa. The change, although of great importance to the Illinois Central, attracted little attention in Congress.)

A few days before the second release was executed Senator Douglas introduced in the Senate a bill granting to Illinois alternate sections of public land for six miles on each side of a proposed railroad from Cairo to Galena and from Chicago to a junction with the main line.⁵³ With the consent, and probably at the suggestion of the Illinois Senators, King of Alabama added an amendment making a similar grant to the state of Mississippi and Alabama,⁵⁴ and a little later Senator Dodge of Iowa made another amendment extending the road to Dunleith.⁵⁵ With these amendments securing the support mentioned on pages 27 and 28 the CONGRESS GRANTS passage of the bill through the Senate was comparatively easy and the measure was approved by a vote of LAND TO ILLI- 26-14.⁵⁶ The real opposition came in the House, but NOIS, MISSIS- the Illinois delegation, under the leadership of SIPI AND ALA- Bissell, McClelland, and Wentworth, forced the Senate bill through the BAMA FOR RAIL- lower house. At times the opposition was extremely bitter, and it was ROAD FROM CHI- only by the various agreements effected in the early part of the ses- CAGO TO MOBILE the Illinois delegation, under the leadership of sion that the act secured sufficient votes to be passed. Finally, a vote was taken, and the bill passed⁵⁶ the House of Representatives by a

⁵³ Senate Journal, 1st sess. 31st Cong.
⁵⁴ Congressional Globe, 1st sess., 31st Cong., p. 845.
⁵⁵ Ackerman, Historical Sketch of the Illinois Central R.R., p. 17.
⁵⁶ The vote on the land grant bill was as follows:

	FOR		AGAINST	
	SENATE	HOUSE	SENATE	HOUSE
New England	1	10	4	11
Middle	2	28	4	22
South	2	8	3	23
Gulf	5	13	1	1
West (land)	13	34	1	12
West (non-land)	3	8	1	7
TOTAL	26	101	14	76

cf. p. 22

It should be noticed that the act of September 20th, 1850, makes grants of land to the the three states, of unoccupied government land inside the state limits to be used in building a railroad inside the state. This is due to the strict constructionist views of the Democratic majority of Congress. Cf. the Union Pacific Land Grant Act.

majority of twenty-five, the vote taking place on the 17th of September. Three days later, President Fillmore signed the bill and the Illinois Central was assured so far as the United States Congress was concerned.

By the terms of this act alternate sections six miles on each side of the proposed railroad were given to the states of Illinois, Mississippi, and Alabama to construct a railroad from Chicago to Mobile. The act, as it related to Illinois, provided for a railroad "from the southern terminus of the Illinois-Michigan canal to a point at or near the junction of the Ohio and Mississippi rivers, with a branch of the same to Chicago on Lake Michigan, and another, via the town of Galena, in said state, to Dubuque, in the state of Iowa." The land in alternate, even numbered sections for six miles on both sides of this road were given to the state to assist this undertaking, but with the provision that the road should be completed within ten years and that if this were not done all unsold lands should revert to the federal government and the state should pay the re-emption price of ~~\$2.25~~ ^{to the United States} per acre for land already disposed of. Furthermore, the road should be a public highway, free of toll, or other charges, for the transportation of any property or troops of the United States; while Congress was to decide what compensation should be given for carrying the mails. To compensate for the loss of land Congress ordered that the alternate, odd numbered, sections six miles on either side of the road, belonging to the government, should be ^{sold} valued at \$2.50 per acre, instead of \$1.25 as previously. Lands already settled were to be retained by the settlers upon payment to the state of the preemption price, or the latter could recompense itself by taking other unoccupied land within fifteen miles of the road. The land could never be used for any purpose other than the construction of the road.

1 ⁵⁷ U.S. Statutes at Large, vol. ix, page 466.
2 ⁵⁸ Ibid.
3 ⁵⁹ Ibid.

The passage of the land grant act of September 20th marks an epoch in the history of Illinois. At last, after years of discouragement and failure, the state had in sight the means necessary to build the Illinois Central Railroad. To even the most conservative citizen, three million acres of land seemed sufficient to guarantee the construction of the road. The more sanguine looked forward to the time when the central counties of the state would be thickly settled and the land grant had paid off all of the burdensome Internal Improvement Debt. Senator Douglas and the other representatives in Congress who had secured the grant, were applauded from Cairo to Galena; mas. meetings and banquets were held in their honor; and every means was taken to show the popular appreciation of their services. ⁶⁰ The influence on the general credit of Illinois was ^{as was shown by} also great ⁶¹ and a rise of several points in the Internal Improvement stock, ⁶¹ showed the importance of the grant.²

The mere passage of the federal act was the least difficult of the many problems confronting the friends of the Illinois Central. For some fourteen years the questions connected with this railroad had been before the legislature and the citizens of the state, and now that suc-

- 60 Ackerman, Early Illinois Railroads, page 35. On their return to Illinois at the close of the session, Mr. Douglas and Gen. Shields were tendered a public dinner by the citizens of Chicago, in consideration of their services in obtaining the passage of this act. In declining the honor, they modestly awarded to their colleagues in the house the full measure of credit for having successfully carried the bill through to completion.
- 61 "The New York Evening Post of the 18th inst says:-- A considerable advance has been obtained in Illinois Internal Improvement stock:: 55 5/8 was bid. for it this morning and 60 asked. This is a rise of 5 to 10 per cent and is due to the advising obtained this morning from Washington of the donation by congress of lands in Illinois in aid of the railroad constructed between Chicago and Mobile, which runs through the whole state of Illinois---also of the swamp land measure." Illinois Daily Register, September 30, 1850.

The second part of the book is devoted to the study of the history of the English language. It begins with a chapter on the English dialects, and then proceeds to a history of the English language from the Anglo-Saxon period to the present. The author discusses the influence of Old English, Middle English, and Modern English on the development of the language. He also touches upon the influence of other languages, such as Latin and French, on English. The book is written in a clear and concise style, and is suitable for students of English literature and language.

The third part of the book is devoted to the study of the English literature. It begins with a chapter on the English literature of the Middle Ages, and then proceeds to a history of the English literature from the Renaissance to the present. The author discusses the influence of the Renaissance, the Restoration, and the Romantic period on the development of the English literature. He also touches upon the influence of other literary movements, such as the Victorian period and the Modernist movement. The book is written in a clear and concise style, and is suitable for students of English literature.

The fourth part of the book is devoted to the study of the English language and literature. It begins with a chapter on the English language and literature of the Middle Ages, and then proceeds to a history of the English language and literature from the Renaissance to the present. The author discusses the influence of the Renaissance, the Restoration, and the Romantic period on the development of the English language and literature. He also touches upon the influence of other literary movements, such as the Victorian period and the Modernist movement. The book is written in a clear and concise style, and is suitable for students of English language and literature.

cess was probable all the previous conflicts were renewed with additional strength. The most troublesome of these conflicts involved the method of construction and the route.

There were four possible ways of utilizing the land grant, each of which had its vigorous adherents: (1) State construction of the railroad by means of the grant, along the line of the Internal Improvement Plan of 1837; (2) Surrender of the grant to the bondholders and construction by them on terms similar to those made by the holders of canal bonds in 1840; (3) Completion by the Great Western Railway Company under its charter of 1849, including the retention of all state lands; (4) Creation of an entirely new private corporation and the transfer to it of the land grant under certain restrictions and with certain payments to the state. This company to assume entire responsibility for the completion of the road.

To many citizens state construction of the Illinois Central was still ^{seemed} a feasible project. From 1831 to 1843 the various plans for the railroad depended on government support, and, despite the collapse of the Internal Improvement plan of 1837, there was considerable talk of direct

STATE CONSTRUCTION FAVORED BY MANY CITIZENS construction by the legislature. The cost of building the road was underestimated, while the value of the land was overestimated. It was ^{expected that} ~~thought possible to build the road~~ ^{could be built} without recourse to bond issues and ^{it was thought that} the profits from operation would then quickly retire the old state debt. ⁶² But the panic of 1840 and the depressing influence of the debt were still vivid in the minds of the

⁶² For instance, Mr. John S. Wright, of Chicago, published a pamphlet in which he took the ground that the grant, being of such immense value, the State should hold the lands and again attempt the construction of the road. Ackerman, Early Illinois Railroad, p.35.

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citizens of Illinois, and they generally condemned any further attempt by the state. As Senator Shields said:--"capitalists will not embark in this enterprise unless they have the control of the servants, agents, etc.....in a word of the construction and management of the road."⁶³

Another form of semi-legislative management was contained in the so-called "bond-holders' plan," which was submitted to the legislature in January, 1851. As a result of the various attempts at internal improvement Illinois had accumulated a debt of some fifteen million dol-

SOCALLED BOND lars and was unable to meet the full interest charges.
HOLDERS' PLAN In fact, the ^{state} government had barely escaped repudiation
OF JANUARY '50 ^{bondholders} and the ~~creditors~~ supposed it would be utterly incapable

of attracting the capital necessary to construction the Illinois Central. Under the circumstances, certain eastern bondholders suggested an arrangement somewhat similar to the one under which the Illinois-Michigan canal was built. A company, composed largely of bondholders, was to be chartered and given power to construct the railroad. ^{four} Four dollars of ^{bond} stock or ^{four} three dollars of ^{stock} bonds, entitled new internal improvement stock, ^{were} was to be given for each dollar of cash paid in. The state was to receive ^{at par to our amount} stock of a par value equal to the value of the lands sold, and in ^{return} addition pay all expenses of surveys, etc. The stock, belonging to the state must be set apart to retire the state debt. The stock of the new company, in addition, could ^{also} be made the basis for state banking. ⁶⁴ On the whole, the terms were about as onerous as could be imposed on a bankrupt state, ^{they} and are in striking contrast to the Il-

⁶³ Speech of General Shields, Springfield, Ill., November 20, 1850, given in full in Illinois Weekly Journal, November 20th, 1850.
⁶⁴ A copy of the bill presented by the bondholders is given in the Chicago Daily Democrat, January 11, 1851 and a summary in the Illinois Weekly Journal, of January 29th, 1851. (This summary is given in full on page 257 of the appendix) Cf. Ackerman, Early Illinois Railroads, page 37, note.

9, 1851
 Illinois Central charter. It is impossible to state just what men were behind the scheme, as it was disowned by many leading bondholders. The project never received serious attention from either the newspapers or the legislature.⁶⁵

The proposed
 Construction by the Great Western Railroad, or in other words by Mr. Holbrook and the Cairo^{City} and Canal Company, attracted much more attention than either of the other two plans. In 1849, as already mentioned, the legislature renewed the charter of the Great Western, including a grant to the company of whatever lands the state might receive from the federal government.⁶⁶ Then, in December, 1849, the directors, under pressure from Senator Douglas, executed a release of both the

THE GREAT WESTERN RAILWAY COMPANY (CAIRO CITY AND CANAL COMPANY) ATTEMPTS TO SECURE THE LAND GRANT IN SPITE OF THE RELEASE charter and the grant, provided^{on condition that} the legislature would accept the same at its next session and incorporate another company to carry on the enterprise.⁶⁷ The charter of 1849 was evidently

obtained with the distinct object of securing the federal land grant, and no work was done on the railroad until it was almost certain Congress would pass the act. Then, construction work was started, and it was stated that large quantities of rails were purchased in England. At the same time, active efforts were made to defeat any bill repealing the charter.⁶⁸ It is uncertain whether this company intended to carry on the undertaking, or, as Senator Douglas alleged, merely sell the charter in Europe.⁶⁹ At any rate, the opposition to the Great Western, especially in the southern part of the state, was bitter and deep-seated.⁷⁰

65 Editorial in Illinois Weekly Journal, January 29, 1851; ibid., January 22nd.

2 Pages 24, 25. supra.

3 Page 26. supra.

4 Letter of Douglas to Breese, pp. 234 ff.

5 Ibid.

6 Continued on page 35. →

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The last plan was to turn the grant over to a private corporation, other than the Cairo City and Canal Company, under proper restrictions. The memorial of the Boston capitalists, who later built the road, was the first direct proposition of the kind, but it is probable that the memorialists had ^{earlier} suggested ^{a similar plan} to the leading legislators of the state, a SUGGESTED THAT plan along the lines of their memorial. In all ROAD BE BUILT BY PRIVATE COMPANY OTHER THAN THE GREAT WESTERN probability, other capitalists were also deeply interested in the railroad. However, there was no definite project of the kind before the people during November and December, 1850.

More troublesome than the method of construction, though of less real importance, was the matter of route. When Lieutenant-Governor Jenkins made his proposal in 1832, it was for a railroad from Cairo to Peru at the junction of the canal and the Illinois river. In the Internal DIFFICULTY OF Improvement act Galena was made the northern terminus SELECTING THE ROUTE and the route was more distinctly marked; including Vandalia, Shelbyville, Decatur, Bloomington, and Savannah. This line was retained in the charters of 1843 and 1849, and in the various bills introduced into the federal Senate by Sidney Breese. But Judge Douglas, in his bills of 1847 and 1849, radically altered the route by extending the road to Dunleith and making a branch to Chicago. As a result, the whole question of route was reopened, and every city and county of importance in the central part of the state asserted its

66 ← (Continued from page 34) This opposition to the Holbrook companies is evident in the newspaper discussion of the time. Compare correspondence between Douglas and Breese given in appendix, pp. 232 ff.

67 None is given in any of the important state papers and if any project were before the people it would be given in the newspapers.

2 Page 12, supra.

3 Page 13, supra.

4 Cf. correspondence between Breese and Douglas, Appendix pp. 232 ff.

5 Pages 27, 28.

The first part of the book is devoted to a general introduction to the subject of the history of the English language. The author discusses the various factors which have influenced the development of the language, and the changes which have taken place in its structure and vocabulary. He also deals with the question of the origin of the language, and the evidence which is available for its study.

The second part of the book is devoted to a detailed study of the history of the English language from the time of its first appearance in the British Isles to the present day. The author discusses the various stages of the language, and the changes which have taken place in its structure and vocabulary. He also deals with the question of the origin of the language, and the evidence which is available for its study.

The third part of the book is devoted to a study of the English language in its present state. The author discusses the various factors which have influenced the development of the language, and the changes which have taken place in its structure and vocabulary. He also deals with the question of the origin of the language, and the evidence which is available for its study.

claims. The contests over the Chicago and Dunleith branches were especially strenuous, and the continued discussion resulted in greater confusion. The decision was necessarily left to the legislature and by them transferred to the company.⁴⁸

Congress passed the land grant act in September, 1850, and the legislature was elected the following November. On account of the release of the Great Western charter it was necessary to settle the matter at the first session of the General Assembly, and, consequently, the selection of proper representatives and senators was of vital importance. As soon as it became evident that the federal House of Repre-

BITTER FIGHT IN ILLINOIS OVER MATTERS CONNECTED WITH THE LAND GRANT AND THE GREAT WESTERN

sentatives would act favorably on Senator Douglas' bill, the advocates of state construction and the friends and opponents of the Cairo City and

Canal Company commenced an active campaign to secure a majority of the members of the legislature. Other state issues were consigned to the background and the question of the land grant and the acceptance ^{of} by Great Western Release were the important factors in the election of members to the 16th General Assembly. The newspapers of the state had numerous editorials and contributed articles defending or opposing the respective plans, or ~~else~~ emphasising the importance of one route over another. Mass meetings and conventions were held ^{at} ~~in~~ various points along the line of the proposed railroad, and the excitement often was

⁴⁸ Illinois Weekly Journal, January 22, 1851; also numerous articles in Chicago Daily Democrat, Illinois Weekly Journal, Illinois Daily and Weekly Register during October, November, and December, 1850, and January, 1851; cf. correspondence between Breese and Douglas in Appendix, pp. 232ff.

at fever heat. By November the controversy had become bitter and personal. Individual motives were impugned; the character of some of the leading newspaper editors, of Mr. Holbrook, Senator Douglas, Judge Breese, and others, was maligned; and charges of bribery and fraud were frequent. By the time the legislature convened in January, the whole discussion had degenerated into a typical Illinois political fight. On the whole, the opponents of both state ownership and ^{of} the Holbrook company had much the better of the argument. Only a few newspapers, such as the Benton Standard and the Cairo Times, and a few politicians, the most prominent of them being Sidney Breese, openly defended the Cairo City and Canal Company, or its subsidiary company, the Great Western. However, the Great Western was already in possession of the desired charter and, conditionally, of the land grant. Thus, inaction on the part of the legislature meant success for the Holbrook party, and the Cairo City and Canal Company exerted every effort to block legislation and prevent the incorporation of a rival company. On account of the many minor fights it was not at such a disadvantage as ^{was} indicated by newspaper editorials. ⁶⁹ ~~XX~~

Most of the plans had been thoroughly discussed during the campaign, and, when the legislature met the first day of January, 1851, its members were well acquainted with the main points at issue. In the organization of the House the Holbrook faction secured a temporary ad-

⁶⁹ The following are the most important references to the conflict between the two factions:--Illinois Daily Register, October 30, 1850; Illinois Weekly Journal, January 22, 29, 1851; Illinois Daily Register, November 8, 1850; December 12, 1850; ibid., October 17, 1850; Ibid., October 10, 1850; ibid., October 9, 1850; Illinois Weekly Journal, November 13, 1850; ibid., November 6, 1850; Ibid., October 30, 1850; ibid., October 16, 1850; Chicago Press and Tribune, October 22, 1851; Illinois Weekly Journal, January 22, 1851; Illinois Daily Register, October 23, 1850; ibid., November 20, 1850.

[Continued on page 38.] →

vantage by the election of Judge Breese as speaker, and during the first two weeks of the session they were strong enough to prevent radical action. Bills were presented in both houses repealing the charter of the Great Western, but both were strongly opposed. The senate pas-

THE LEGISLATURE
FAILED TO RE-
PEAL CHARTER OF
GREAT WESTERN IN
FIRST WEEKS OF
THE SESSION

^{concerning} sed a bill ~~in regard to~~ the Illinois Central, which did not accept the release of the Holbrook company; the House passed a bill accepting the release and refused to adopt the senate measure. ⁷⁰⁴ A large ma-

ajority of the members of each body favored the repeal of the Great Western charter, but ^{until a more reasonable} ~~so far in the session~~ the Holbrook proposition was ^{presented} the only reasonable measure before the legislature and many preferred to retain the Cairo company rather than to be entirely without a means of building the road.

At this stage of the contest affairs were entirely altered by a businesslike memorial presented by Mr. Robert Rantoul of Massachusetts, acting in the interest of a group of wealthy New York and Boston capitalists. In brief, the plan of the memorialists was as follows:--

Sen. J. and Ho. J.

470 Illinois Daily Register, January 15, 1851; also ~~Journal of House and Senate~~, January 1st to 15, 1851.

Continuation of note p. 27
As the leading advocate of the "Central" Senator Douglas had endeavored to secure an early acceptance of the release and continually urged such action from the time he received the final release of the Great Western. Even as early as October, 1849, he had attempted to obtain action by the legislature, but without success (Illinois Daily Journal, October 31st, 1849). The matter was brought up at the special session and Representative Denny introduced a resolution "that the committee on internal improvements be instructed to inquire into the expediency of so altering and amending or repealing the charter of the Great Western Railway as in their judgment will be best calculated to promote the interests of the state...." (Illinois Daily Journal, October 31st, 1849). The discussion was at times very heated, but the policy of inaction finally prevailed, it being thought that the matter could rest until the regular session of 1851. (Illinois Daily Journal, October 24, 1849).

The legislature should create a corporation and surrender to it the federal land grant. In return the incorporators agreed to build a railroad "equal in all respects to the railroad running between Boston and Albany, with such improvements thereon as experience has shown to be desirable and expedient; to complete the road by July 4, 1854; and to pay

MEMORIAL PRESENTED BY NEW YORK AND BOSTON CAPITALISTS the state -----⁷¹ per cent of the gross receipts in return for the land.¹ The memorialists were men

of considerable capital and ~~had had~~ experience with railroad promotion in other parts of the country. On the whole, they made a much more favorable offer than could have been expected. The Governor recommended the acceptance of their proposition in a special message, and most of the members of the legislature and friends of the Illinois Central believed that this memorial was ^a first class opportunity for the state. This is illustrated by the following quotation from the Illinois Weekly Journal, "We agree with the legislature that ¹this company are seeking no advantages, and that their object is to build the road without loss to themselves and with advantage to the state."⁷²

Coincident with the transmission of this memorial Mr. Ashael Gridley introduced in the senate a bill "for an act to incorporate the Illinois Central Railroad."⁷³ On February 5th Mr. J.L.D. Morrison offered a substitute for the original bill,⁷⁴ and on the next day it passed

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Cf. copy of memorial given on pages 258ff. of the Appendix. ✓

⁷¹ Illinois Weekly Journal, January 22nd, 1851.

⁷² Ackerman, Early Illinois Railroads, page 39.

⁷³ Ibid.

⁷⁴ In the original memorial the amount paid to the state was left vacant. It was proposed in the House that ten per cent be given, but the company, through the efforts of Robert Rantoul and Representative Bissel, managed to reduce the ~~per centage~~ to seven per cent. The real reasons for the action of the legislature in this matter are not known, and in his campaign for election as governor, Colonel Bissel was accused of having obtained the reduction to the disadvantage of the state.

by a vote of 23 to 3.⁷⁵ Four days later it passed the house by an almost unanimous vote of seventy-two to two,⁷⁶ and was immediately signed by Governor French.⁷⁷

The passage of the charter through both houses was not as easy as the vote ^{seems to} indicate. Shortly after the receipt of the memorial the whole matter was referred to a committee ^{where} and the members, in connection with Mr. Rantoul and Colonel Bissel, the representatives of the promoters, spent considerable time in preparing the measure. As the duration of the session was limited to forty days, the PASSAGE OF CHARTER NOT AS EASY AS INDICATED BY VOTES Holbrook interests made every effort to delay the bill, and during the last week of January and the first of February it looked as if their efforts would meet with success. At last, as noted above, the bill was passed by both houses only a few days before the close of the session. The main difficulty came in the selection of a route, and the legislature was finally forced to leave the exact location of the road to the incorporators.⁷⁸ The other point of conflict was the percentage to be paid the state. This was finally fixed at seven per cent of the gross receipts, but, at the same time, the company was ^{exempted} freed from paying any state or local taxes.⁷⁹

As passed, the bill incorporated the Illinois Central Railroad company, with a perpetual charter, gave it the remains of the old state surveys and gradings, gave it the federal land grant and right of way, and exempted its property from taxation. In return, the railroad was obliged to complete the main line in four years, and the branches in six, to build the road "equal in all respects to the Great Western of Massachusetts", to hold the state free from any responsibility connected with the grant, and to pay the state seven per cent of the gross earnings.⁸⁰

Illinois Weekly Journal, February 12, 1851. House and Senate Journals.

Ibid.

Ibid.

Ibid., also February 5, 1851. ¹² cf. page 39, note.

The text of the charter is given on page 26 ff. of the Appendix.

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CHAPTER III.

CONSTRUCTION OF THE CHARTER LINES.

The chartering of a private corporation with liberal powers and the granting to it of nearly three million acres of public land was merely a preliminary step in the building of the Illinois Central. In 1851 railroad construction was in its infancy. The largest system at that time, the New York and Erie, was only three hundred miles long, and the construction of a first class trunk line some seven hundred miles in length through the thinly settled interior counties of a western state involved engineering and administrative difficulties entirely new to the promoter of the early fifties. Never before in this country had such an enormous amount of capital been expended on a single private undertaking, and what the building of the Canadian Northern or Panama Canal ^{is} ~~are~~ to-day, the ^{construction of the} Illinois Central was in the decade preceding the Civil War.

From the first this final attempt to build a railroad through the center of the state was supported by some of the ablest railroad magnates of the time, men who had had abundant experience in other lines of business activity and who, ^{at} ~~at~~ the same time, had the financial support necessary to push the enterprise to a successful culmination. It is doubtful whether twelve men could have been selected who, at the time, possessed the confidence of the country to a greater extent than did Robert Schuyler, Gouverneur Morris, Robert Panto'l, and the other members of the first board of directors.

In general the promoters represented ~~that class~~^{that class} of successful merchants who constituted the moneyed class of the period; a class whose activities extended into politics and government, as well as into strictly commercial enterprises. Of the entire board Robert Schuyler and Robert Rantoul were probably the best known and most respected.

Robert Rantoul, Jr., the man most influential in securing the passage of the charter by the Illinois Legislature, was a leading lawyer of Massachusetts. He had held several high elective and appointive offices under both the federal and state governments and, in 1850, on the death of Daniel Webster, he represented his state in the federal senate during the remainder of the term. During the administration of President Fillmore he was strongly advocated as successor to Secretary of the Treasury Walker, but did not receive the nomination and died shortly afterwards. The charter of 1851 is very largely his work, and during the organization of the company he was influential in shaping its financial policy. The present city of Rantoul about one hundred miles south of Chicago, is named after him.

Second in importance to Rantoul, was the first President, Robert Schuyler. During the first years of the company's existence he seems to have been the leading director of its work and was the one/most active in organizing the corporation. In fact, he was what to-day would be called a promoter. One company after another, the New York and New Haven, Alton and Sangamon, Great Western, Boston

 12 Ackerman, Historical Sketch of the Illinois Central Railroad, pp. 27-36; Chicago Daily Democrat, January 16, 1851. For an interesting account of the various persons connected with the early history of the Illinois Central the reader is referred to Mr. Ackerman's account of the road, entitled Historical Sketch of the Illinois Central Railroad.

and Albany, and Illinois Central, all came under his direction or control, and in general they were well managed. Up to 1853 his record was entirely above suspicion, but in that year he became involved in some extremely questionable ^{he} proceedings in connection with the New York and New Haven Railroad by which he fraudulently issued over a million of stock to himself and friends, ³ although it has been said he was more sinned against than sinner. ¹

¹³ Ackerman, Historical Sketch of the Illinois Central Railroad, pp. 57-~~to~~ 60; cf. chapter vi, ~~pages~~ 170, 171. omit

The following is a short account of the less important members of the first directory taken from Mr. Ackerman's Historical Sketch of the Illinois Central Railroad, pages 21 ff.

Gouverneur Morris, was a son of Gouverneur Morris of Revolutionary fame and was one of the leading financiers of New York. He was closely connected with President Schuyler and the financial difficulties connected with the latter's embezzlement of New York and New Haven funds forced him into bankruptcy. (pp. 39 to 45)

George Griswold, David A. Neal, Thomas W. Ludlow and Joseph Alsop were leading foreign merchants of the time, most of them being engaged in the very profitable East India and China trade. They were notably successful in their special line of business and commanded the confidence and respect of their associates. Jonathan Sturges, John P. Sanford, Leroy M. Wiley and Henry Grinnel, were prominent domestic merchants; Sturges was in the tea and coffee business; Sanford was engaged in the Indian trade in connection with the old firm of Berthold and Choteau, later the American Fur Company; Wiley was one of the leading southern merchants of the period just preceding the war; Grinnel was a member of the commission firm of Fish and Grinnel, and is noted principally for his interest in Arctic exploration. Franklin Haven was a banker of Boston, being one of the incorporators and for fifty years president of the Merchants Bank of that city. Though not members of the first board of directors, William H. Aspinwall and Morris Ketchum were very closely connected with the formation of the company. The former was, like many of the other promoters, interested in foreign commerce, and thus acquired considerable wealth. The latter was a member of the banking firm of Ketchum, Rogers and Bement, who were the New York bankers of the Illinois Central; he was connected with the locomotive works of Rogers, Morris and Grosvenor, now the Rogers plan of the American Locomotive Company and was a brother of the celebrated lawyer, Hiram Ketchum.

At one time Mr. Schuyler was president of four other leading railways, besides being interested in several others. Sturges, Morris, Schuyler and Ketchum were intimately connected with the New York and New Haven. Aspinwall, Ludlow and Alsop took a leading part in the construction of the Panama railroad; Aspinwall and Alsop were connected with the Ohio and Mississippi; while several of the incorporators of the Great Western Railway of Illinois were on the board of directors of the Illinois Central.

Although not one of the original directors Mr William H. Osborne soon became interested in the Illinois Central, and from the retirement of President Schuyler in 1853 to the acquisition of the Southern Lines

~~WILLIAM H OSBORNE~~ in 1882 he was the dominant figure in the history of the ~~company~~ company. A man of great ability and strong personality, with a broad grasp of affairs, he won the absolute support of stockholders, employees and shippers, and for over twenty years English and Dutch shareholders gave him their unqualified proxies, carrying with ~~them~~ ^{to him} the complete ^{central} management of the Illinois Central. So well did he execute this trust that even during the periods of deepest depression they did not condemn his management of the road. / It may be said without contradiction, that / The company owes more to Mr. Osborne than to any other person connected with it. [✓]

The remaining directors, ^{were} ~~though~~ prominent business men, ^{but they} did not exert ^{such an} ~~a~~ dominant influence upon the management of the property, ~~such as~~ ^{did} that exercised by Pantoul, Schuyler, and Osborne, and with one or two exceptions, they are practically unknown to-day. ⁵ However, as has been

BOARD OF DIRECTORS - IMPORTANT FACTOR IN THE EARLY HISTORY OF THE COMPANY

the case with most of their successors in the directorate, they took an active interest in the affairs of the corporation, and much of the financial success of the railroad is due to their hard and consistent work in directing the construction of the road and watching over the financial operations.

Ackerman, Historical Sketch of the Illinois Central, ^{Railroad} pp. ~~21 ff.~~ ^{21 ff.}

Ibid., pp. 21 ff. ~~cf. note on page 45.~~

Credit for the success of the company should also be given to the English and Dutch stockholders. Up to comparatively recent date the Illinois Central was owned largely by foreign stockholders and these shareholders have always kept a close watch on the affairs of the company. At times there has been friction between the stockholders and the management in this country, but on the whole, much of the success of the railroad is due to the active cooperation of the English investors. This was especially true of the early history of the company.

As the London Times conservatively puts it, "As regards the directors in the United States....there is enough in the commercial position of the parties to execute full confidence that the undertaking is believed to be intrinsically sound."¹ Fortunately, sound business sense and high commercial ability were supplemented by long and valuable experience in other railroad activities. Most of the members of the board had been connected with other railroad enterprises and several, including Schuyler, Osborne and Ketchum, had been interested in the promotion and operation of several large undertakings.²

With such a strong group of promoters, the active work of organization followed closely upon the chartering of the company. It is very probable that a preliminary organization had been created some months before the charter was actually secured. According to the provisions of ^{the charter} ~~that document~~ the promoters were allowed sixty days to accept the ~~charter~~ ^{and} immediately upon receipt of the act steps were ^{taken} ~~made~~ to complete the regular organization. However, Governor French was ex-officio a director, and as there were many matters of interest to the state, action was deferred until his arrival.⁶ Finally, on the ~~19th of March~~ ^{19th} of March, 1851, the incorporators met in a little dimly lighted room at ~~Number one~~ ^{city} ~~Mano-~~ver Street, New York, ~~just off from the busy thoroughfares~~, and there ~~and then~~ formally organized the Illinois Central Railroad Company by accepting the legislative act of February 10th, ^{by} making provision for the various requirements of the charter, ^{by} and electing Robert Schuyler President.⁷

⁶ Ackerman, Historical Sketch of the Illinois Central Railroad, pp. 21- to 60. ~~cf. note # p. 48.~~

⁷ Ibid.

⁷ Ibid., Chicago Daily Democrat, March 10- to 30, 1851.

the first of these is the fact that the
to the second... the third... the fourth...
the fifth... the sixth... the seventh...
the eighth... the ninth... the tenth...
the eleventh... the twelfth... the thirteenth...
the fourteenth... the fifteenth... the sixteenth...
the seventeenth... the eighteenth... the nineteenth...
the twentieth... the twenty-first... the twenty-second...

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the twenty-sixth... the twenty-seventh... the twenty-eighth...
the twenty-ninth... the thirtieth... the thirty-first...
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the fifty-ninth... the sixtieth... the sixty-first...
the sixty-second... the sixty-third... the sixty-fourth...
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the seventy-seventh... the seventy-eighth... the seventy-ninth...
the eightieth... the eighty-first... the eighty-second...
the eighty-third... the eighty-fourth... the eighty-fifth...
the eighty-sixth... the eighty-seventh... the eighty-eighth...
the eighty-ninth... the ninetieth... the ninety-first...
the ninety-second... the ninety-third... the ninety-fourth...

The records of the following meetings have been made public
 What occurred at that and the following meetings is a secret, hid-

den away in the private archives of the railroad company, but, from newspaper reports, it seems ^{that} active work was not long delayed. One mil-
 PREPARATIONS FOR ACTIVE CONSTRUCTION ^{dollars} lion of stock was subscribed, later another million was taken, and enough paid in to allow Mr. Ketchum, the Treasurer, to deposit the guarantee fund of \$200,000 required by the charter; officers of the company were elected; ^{and} arrangements ^{made} for active prosecution of the work in Illinois; negotiations opened with the federal government in regard to the land grant; and, a definite financial ^{program} prepared. ^{8 1}

The charter provided that work should commence on the main line not later than January ^{first}, 1852, and, as the entire ^{route} location of the road had to be ^{determined} completed long before that date, there was no time for delay. On March 22nd, or only three days after the organization of the company, Mr. Roswell B. Mason, the Engineer and
 COLONEL MASON ELECTED CHIEF ENGINEER General Superintendent of the New York and New Haven Railroad, better known on account of his career as mayor of Chicago, was appointed Engineer-in-Chief and given entire charge of construction work in Illinois. ^{9 2} At that time there were few men who had had either a practical or theoretical training in railway civil engineering, and the selection of an efficient engineering staff was by no means an easy undertaking. But good pay, the importance of the new railroad, and the high reputation of Colonel Mason overcame the difficulty, and by the middle of May, a staff of about seventy engineers had been collected and were on their way to Chicago. ^{10 3}

^{4 8} Cf. chapter vi, pages 162-167. ^{Railroad}
^{8 9} Ackerman, Historical Sketch of the Illinois Central, p. 82.
^{8 10} Ibid.

The party arrived in Illinois on the 17th of May, and the work of preliminary survey was immediately started. Only five specific points were given in the charter, viz. Galena, Chicago, Cairo, southern terminus of the Illinois ^{and} Michigan canal, and Dubuque, ^{and} The only other re-

PRELIMINARY
SURVEYS AND
SELECTION
OF THE ROUTE

strictions upon the route ^{was} that the line should pass within five miles of the northeast corner of Township 21, range 2, east of the third principal meri-

dian; should not vary more than seventeen miles either way from a straight line from Cairo to the southern terminus of the canal; and that the Chicago branch should not be north of the parallel of 39 degree ^s and 30 minutes. ¹¹ Otherwise, the company had entire latitude in locat-

ing the route. ¹² As has been the case with practically every new rail- road in this country, ~~there was bitter rivalries between various towns~~

~~as to which should have the new railroad, and with the "Central" these~~ ^{entered upon a bitter contest for} ^{In the present instance}

sectional rivalries had been fanned into a fierce flame by fifteen years of agitation. So intense was this competition that the legisla- ture could not decide the route and left the controversy to the rail- road. ¹³

(Hardly had the charter been granted when rival towns commenced active agitation to secure the much coveted railroad.) For the main line from Cairo to La Salle there had been but a single route proposed since 1835, ^{namely} the present line, passing through Lu Quin, Van- dalia, Decatur, and Bloomington, with the exception of Shelby- ville. The ~~exact~~ "southern terminus" of the canal was in dispute between La Salle and Peru, each claiming it was the legal ter- minus and consequently the end of the railroad. From La Salle to Ga-

RIVAL
ROUTES
FOR THE
RAILWAY

1" Charter of February 10, 1851, section 15, paragraph 3.
2" Ibid.
3" Cf. Chapter ii, page 3.

lena there were two ^{possible} eligible routes, ^{one passing through} via either Freeport ^{the other through} or Savannah. see note
p. 45

As to the branch there was every possible route from a line parallel with the canal, joining the main line at La Salle (now occupied by the Chicago, Rock Island and Pacific Railroad), to one just west of the state line, making connection with the main stem near Jonesboro (a line just west of the present Chicago and Eastern Illinois Railroad)²

The matter of a proper route was the cause of much perplexity to Colonel Mason. The new railroad could not afford to arouse the active hostility of any section of the state, and yet, the line must be located where it would be of the most benefit to the company.] For the purpose of surveying the various routes Colonel Mason divided the territory

into seven general divisions; each with the usual surveying party, and within a few days after the engineers had reached Chicago the surveys were actually commenced.¹⁶ It

was spring in Illinois and to the usual disadvantages of reconnoissance work on the frontier ^{were} added the inconveniences of Illinois mud and rain. Mr. Mason, himself, took an active part in the work and spent all the time he could spare from affairs at Chicago, in going over the various routes to obtain first hand information as to the layout of the land. Thus, by the middle of summer he was in a position to make a decision as to the route.¹⁷

1 The newspapers of this period, especially those at Chicago and Peru, are full of this rivalry between the various towns.
 2 ¹⁴ Ackerman, Early Illinois Railroads, page 82.

3 ¹⁵ Ibid.

4 For an interesting description of the difficulties connected with the construction of the ^{the road} reader is referred to Mr. Ackerman's account, on page 82 of his Early Illinois Railways.

^{roads}, p. 82.

the more from important considerations;
 In deciding the route ~~he~~ ^{he} was compelled to take into consideration four important items, two of which lay entirely outside the field of engineering.) (1) As the company could not take land more than fifteen miles from the tracks it was not desirable to run the line through thickly settled regions where much of the land granted the company by the federal government had already been ~~preoccupied~~. (2) The road ~~must~~ ^{should} be so located as to build up the largest and most profitable traffic possible. (3) Wherever practicable there should be a minimum cost of operation, and all grades, curves, ^{and} sections involving heavy maintenance work, etc., ^{avoided} should be eliminated. (4) Finally, the cost of construction ~~must~~ ^{should} be confined to the lowest amount consistent with safety and good operating efficiency; expensive rights of way, heavy masonry work, long bridges, extensive gradings, and other costly work were decidedly undesirable.

IMPORTANT
CONSIDER-
ATIONS IN
DECIDING
THE ROUTE

Furthermore, the whole problem was complicated by local rivalries. Local committees were appointed to bring pressure on the officials; offers of free right of way and liberal city franchises were made, and even railroad bridges and short sections of track promised, if only the railroad would build through particular districts. Shelbyville was insistent upon the advantages of that place as a point on the main line, as also the junction of the Chicago branch, while the controversies between Perry and La Salle, and Savannah and Freeport became extremely bitter. Each of these places took active measures to secure the railroad and even went so far as to institute legal proceedings to force the company to choose the particular loca-

*must this point be
or to be built
into the line*

1 Chicago Daily Democrat, July 23, 1851; *ibid.*, May 15, 1851. The question of a route for the railroad was taken up all over the states and papers as far away from the contest as Belleville and Alton had many accounts of offers of franchises, rights of way, etc. e.g. Belleville Advocate, February to September, 1851.

tion desired by the litigant.¹⁴ In the midst of this "Gown state" controversy the territory around Chicago was aroused by a rumor that the "Central" was intending to pass by that city and run its line from a junction with the Michigan Central at the state line near what is now Hammond, directly southward along the state border to Jonesboro.¹⁵ But threats, bribes, and litigation alike had little influence upon the management, and it proceeded to lay out the route without heeding the demands or threats of the various rival towns along the proposed right of way.

Thus, the company selected the route entirely upon its economic merits and, with slight exceptions, the line chosen was the most direct and shortest of the possible routes. From Cairo to Freeport the railroad was as straight as practicable, only slight variations being made to include the important towns of Vandalia, Decatur, Bloomington, La Salle, and Mendota, and there is one stretch of track south of La Salle which extends sixty miles without a curve. The Chicago branch from the junction with the main line at Centralia, was also almost straight, and for the entire distance of two hundred and fifty miles only three curves, and those of large radius, were necessary. In selecting the route from Dixon to Galena, the preference was given to Freeport instead of Savannah; and the present line of the Chicago branch was decided upon in preference to the line farther east. With the various disputed points decided, the total length, according to Colonel Mason's first report, was 699 miles.¹⁸

¹⁴ Chicago Daily Democrat, July 23, 1851; ~~Ibid.~~ May 15, 1851.
¹⁵ Ibid., May 15, 1851.

¹⁸ Report of President Schuyler to Directors, September 12, 1851, in Documents relating to the Organization of the Illinois Central Railroad.

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The questions connected with the route having been settled, the engineers were free to spend their entire time in completing the surveys and preparing the preliminary estimates ² as to the cost of construction. Work progressed rapidly, and by the first of September, 1851, a preliminary report covering both amount and cost of construction work was

FINAL SURVEY: submitted to the president. ¹⁹ According to the charter
 COST OF CON- the road was to be first class in every respect, equal
 STRUCTION RE- to the Great Western Railway of Massachusetts, and the
 PORTED TO THE estimates were prepared on this basis. Heavy T rails, light grades,
 PRESIDENT easy curves, well built embankments and fills, ample cuts, and brick or
 stone buildings were to be provided, and everything was to be of the
 highest standard consistent with the light traffic conditions ^{which would} prevail-
 ing on a western railroad. ²⁸ Although built ^{over} through the level prairies
 of Illinois, an average of thirty thousand cubic yards of earth was
 to be used per mile on embankments and fills. ²⁴ Including equipment and
 all construction expenditures, the total cost was estimated at
 \$16,537,212, or \$23,700 per mile. ²² Even this liberal amount ^{was not}
 insufficient and the final cost exceeded the preliminary figures by some
 ten millions of dollars. ²³

The surveys were hastened as much as possible, but the final results were submitted none too soon. According to the charter, the main line was to be completed within four years from February 10th, 1851, and the branches within six years, while work on the main line was to be commenced by January 1st, 1852; therefore, it was imperative that the

- 19 Report of President Schuyler to Directors, September 12, 1851, in
 Documents Relating to the Organization of the Illinois Central R.R.
 20 Ibid., also Section 15, paragraph 3. of the charter, ¹⁸⁵¹
 21 Ibid.
 22 Ibid.
 23 Ibid.; cf. chapter vi, pp. 164, 165.

construction should not be delayed.²⁴ Nor was the undertaking an easy one to complete with²⁵ this short period. Large construction companies did not then exist; rails, chairs, fastenings and bridge iron had to be imported from England, and other supplies carried west from New England, New York, and Pennsylvania; the amount of grading was very great; and labor was far from abundant.²⁶ Thus, even aside from any financial difficulties, the question of building the road within the time limit was very perplexing, and the directors, as well as Colonel Mason, were forced to pay close attention to construction work in Illinois.

Among the various questions which occupied the attention of the directors was the one "by whom and in what way should the road be built". As early as April 23rd, 1851, a Mr. Franklin, for several years Railroad Engineer for the Russian Government, offered to build the Illinois Central Railroad and take bonds in payment on very liberal terms.²⁷ Even before that date it was rumored that private corporations were willing to undertake the construction of large portions of the road.²⁸ But the work was entirely beyond the capacity of any private construction company and the officials of the Illinois Central wisely determined either to build the road themselves or else²⁹ let the work out in small sections. This conclusion was reached early in 1851, and, Colonel Mason's estimates, therefore, were made with that end in view.

²⁴ Charter, of the Illinois Central, section 15, paragraph 3; *ibid.*, section 23.
²⁵ Cf. pages 71, 72 in chapter ii. Practically no railroad material was made in this country, and it had to be imported from Europe.
²⁶ *Chicago Daily Democrat*, April 23, 1851.
²⁷ *Ibid.*, April 22, 1851. Cf. this method with the Credit Mobilier in the Union Pacific and the Construction company in the Iowa Falls and Sioux City, *infra* chapter iv, page 87, 88.

Although this decision was made in the middle of the year and the preliminary engineering estimates were submitted by the first of September, the final estimates were not submitted until much later, and it was impossible to start active construction work on the main line that

fall. However, in accordance with the letter of the

GROUND
BROKEN AT
CAIRO AND
CHICAGO

charter, the Illinois Central, on December 23rd, 1851,

broke ground at both Cairo and Chicago, and amidst elaborate

ceremonies, the salutes of cannon, and the ringing of bells,

formally commenced the construction of this great enterprise.²⁸ During

the winter ^{contracts were made for supplies} supplies were contracted for, the federal land survey was

completed, and ^{were} arrangements made for transfer of the land to the company, and other preliminary work ^{was} completed.

^{re} Specifications had been prepared during the winter, and on the 15th of March, 1852, ^{the company} bids were asked for the construction of divisions 1,

2, 6, 8, 9 and 10. The proposals were to include grading, masonry, bridging, superstructure for the entire division or a part of the same,

CONTRACTS LET FOR DIVISIONS 1, 2, 6, 8, 9, 10 or merely for a single item, such as grading, if de-

sired.²⁹ Bids could be entered with or without material.

The terms were one half cash and one half seven per cent bonds at par,

with the usual arrangements in regard to inspection, completion within

a specified period, ^{and the material.} etc. At the time the contracts were placed the

credit of the road was exceptionally strong, and there was a ready re-

sponse on the part of contractors, both in Illinois and the eastern

²⁸ Cairo Sun, December 25, 1851.

²⁹ Chicago Daily Democrat, April 23, 1851; *ibid.*, March 25, 1852.

To facilitate the work of construction, the road was divided into twelve divisions, varying in length from fifty to seventy-five miles, according to the character and extent of the grading and bridging. Over each division was placed a division engineer, whose duty it was to supervise the individual contracts and direct the construction done directly by the company.

states. Men even came on from Europe and there was not a section of the line ^{but} what was ^{not} bid for several times. ^{As a result} naturally, the bids were low and the terms favorable to the company. This permitted the railroad to let the work out to responsible bidders at reasonable figures and the work was commenced by first class, experienced contractors. In many cases the division contractors sub-let part of the work. On the whole, the relations between the company and the contractors was amicable, and friction was the exception.² The strong competition between bidders, and the financial standing of the company, prevented letting the work at excessively high prices and the Illinois Central was built as cheaply as could have been expected under semi-frontier conditions.³⁰

Contracts for the first six divisions were let early in June, 1852, and bids for the 3rd, 4th, 5th, 7th, 11th and 12th divisions were ^{accepted later in the summer.} let on the 14th of the same month. Work was commenced immediately on

CONTRACTS let	the 3rd, 4th, 5th and 7th divisions, but the 11th and
FOR DIVISIONS	
3, 4, 5, 7, 11, 12	12th were not pushed until two years later. ³¹ The bids

included only the grading and part of the bridges; the company itself laid the rails and erected most of the buildings.³² Thus, by the end of October, 1852, the entire road, with the exception of 52 miles north of the Big Muddy^d River, where the contractors had ^{given} thrown up their work, was under contract and active construction had been started.³³

³⁰ Advertisement in railroad journals, ~~month of~~ March, 1852; also Chicago Daily Democrat, March 25, 1852.

³¹ Ibid.

³² American Railroad Journal, October 25, 1856.

³³ Ibid.

³⁴ Ibid.

There was undoubtedly a small amount of mismanagement in the construction of the road, but the amount was small. Some of the directors were interested in contracts with the company, but there is no evidence to show that they used their official positions to defraud the company. For a fully discussion of these points, see Chapter vi, pages 181, 182.

The affairs of the Illinois Central at Chicago were not proceeding as smoothly as in the southern and central parts of the state. Railroad matters in that city had been in a thoroughly demoralized condition for many months prior to the passage of the charter, and the company was forced to take a hand in local railroad controversies and also in municipal politics in order to secure adequate terminal facilities and a city franchise. The conflict between the Lake Shore and Michigan Southern (then the Southern Michigan) and the Michigan Central ~~was the one~~ which involved the Illinois Central in the greatest difficulties.

For several years these two railroads had been keen rivals in Michigan and northern Indiana, and during the year 1850 they had extended their tracks to within a few miles of Chicago. Each endeavored to secure an independent entrance to the city and to prevent its competitor from obtaining a similar right. The result was a bitter fight in the legislatures of Illinois, Michigan, and Indiana, in the common council of Chicago, in municipal politics of that city and even between groups of workmen along the tracks.³⁴ The companies were of equal strength, and neither could secure a charter from the state of Illinois or a franchise from the city. Despite all their efforts the two railroads, in 1851, were halted at the Illinois state line.

The charter for the Illinois Central was before the legislature at this time, and the Michigan Central allied itself with the promoters of this road, hoping, thereby, to secure the coveted entrance to Chicago.

~~MICHIGAN CENTRAL~~ The influence of the Michigan company was brought
~~ALLIES ITSELF WITH~~
~~ILLINOIS CENTRAL~~ to bear on the legislature, and it is very probable that financial assistance was extended to the promoters of the new

³⁴ Cf. Chicago Daily Democrat during the latter half of the year 1850. Mr. Wentworth, editor of the Democrat, took an active part in the controversy.

1. The first of these is the fact that the
2. second of these is the fact that the
3. third of these is the fact that the

company. The charter was eventually passed, and the Illinois Central was allowed to make connections with other railroads. ³⁵ At the time, it was commonly understood this provision applied to the Michigan Central.

Very soon after the "Central" was organized rumors began to arise that the two companies were to form some kind of a connection by which the Michigan corporation would enter Chicago over the tracks of the Illinois Central. (Congressman Ventworth in the Chicago Daily Democrat of April 22nd gave credence to this report in the following statement: "The Michigan Central has offered to build a road for the Illinois Central from Chicago to the Indiana state line and take the bonds of the company in payment, and have the bonds draw interest only from the completion of the road. The offer was before the Illinois Central board in New York on Tuesday last....The proposition is to have that road in running order by the first of next October."² And again, only a couple of days before the arrival of Colonel Mason, the following notice appeared in the Democrat:--"The contract of the Michigan Central with the Illinois Central Company is to build the railroad from Chicago to the Kankakee river in one year....and to the state line by October 1st next..."³ Additional strength was given these rumors by the action of

RUMORS THAT MI- the Michigan Central's subsidiary corporation, the ³⁶ CHICAGO CENTRAL
WILL HELP THE Albany and Salem, commencing surveys from Chicago to
ILLINOIS CENTRAL the state line.⁴ However, these rumors were groundless and nothing more
was heard until the Illinois Central itself commenced surveys southwest
of the city towards the Indiana state line and the Kankakee river. ³⁷

- 1 ³⁵ Illinois Central Charter, Section 11.
2 ³⁶ Chicago Daily Democrat, April 22nd, 1851, May 21, 1851.
3 Ibid., May 15, 1851.
4 Ibid., May 12, 1851.
5 ³⁷ Ibid., May 21, 1851.

While these preliminary surveys were being completed, the company was making special efforts to secure an ordinance admitting it to the city of Chicago. Mr. Prayman, of Springfield, and Representative afterwards Governor, Bissell, of Belleville, had been appointed solicitors of the company in Illinois and on July 12th, 1851, the latter, in connection with representatives of the Michigan Central Railroad, presented a petition to the city council of Chicago asking permission to lay down track within the city limits.³⁷ A few days later, this memorial was withdrawn for correction and revision on account of opposition in the council.³⁸

Three months later Colonel Bissel submitted a second memorial.³⁹ Although the construction of the Illinois Central was regarded as one of the most important events in recent state history the city council, and to a less extent, the daily newspapers, were hostile to the company. The strife over the Southern Michigan-Michigan Central entrance had been so bitter that the supposed alliance between the Illinois Central and the Michigan Central brought upon the former suspicion and even opposition. So strong was the feeling that, upon a mere rumor that the "Central" was planning to build a cut-off to Joliet, thus establishing a rival railroad center near the Indiana line, a resolution was introduced into the city council of Chicago, disapproving such a policy and bitterly attacking the Illinois company.⁴⁰ The element opposed to the Michigan Central was strong

³⁷ Chicago Daily Democrat, July 13, 1851.

³⁸ Ibid., October 17, 1851.

³⁹ Ibid.

⁴⁰ Ibid., also October 13, 1851.

enough to pass the resolution and, in addition, appropriate ten thousand dollars to be used in preventing the establishment of the Joliet cut-off.¹ This action was commonly attributed to representatives of the Southern Michigan Railroad, and immediately after the passage of the resolution copies were printed and scattered broadcast throughout the eastern states, England, and Holland to hinder the floating of the Illinois Central loan.² The city council soon found that their action was uncalled for, and a few days after the passage of the original measure the matter ^{it} was reconsidered, ^{modified the extreme} and the ~~exaggerated~~ statements of the first resolution, ^{and adopted} modified. ^{forward} A more conciliatory policy in regard to the three railroad companies was pursued during the remainder of the year.⁴

Despite the distrust and hostility shown in the action of the council, Colonel Mason and Solicitor Bissel again presented their petition for an entrance to the city. After a careful consideration of the various routes the company asked for an entrance along the lake front. The railroad was to be built northeast from lake Calumet, now Kensington, to the southern limits of the city at what is now 53rd Street. This, of course, was outside the old city boundaries. From Hyde Park to Park Row, 12th Street, the company was to have permission to place its tracks along the lake shore and could purchase what land it needed from private owners of real estate. From Park Row to the Chicago River the railroad was to receive from the city a five or six hundred foot right of way just east of Michigan Avenue. In return for this grant, the company agreed to provide permanent protection, in the form of levees and

1 ¹³ Chicago Daily Democrat, October 17, 1851. The files of newspapers for the days in which this resolution were printed are unobtainable and the only information to be found in regard to the same ~~same~~ comes from editorials of a later date.

2 ⁸⁴² Ibid.
3 ⁸⁴³ Ibid.

4 ⁸⁴⁴ Ibid.

piling, against the encroachments of Lake Michigan. This protection was to extent^d from Hyde Park to the Chicago River.^{x45} When the petition of the company was presented, the city had provided practically no protection against the lake, and most of the territory north of the city limits and east of the present Illinois Central tracks was submerged land.

Sixty years ago Michigan Avenue was the ~~exclusive~~^{residence} residence street of Chicago and the proposition to run a steam railroad along the avenue provoked strenuous opposition from the property owners, who believed it would destroy the value of their investments. On the other hand, the north and west wards had, for years, paid heavy taxes to protect the

CONTEST BETWEEN
SOUTH AND WEST
SIDES OVER RIGHT
OF WAY ALONG THE
LAKE SHORE

~~to protect the lake shore from encroachments of~~

lake Michigan, and that portion of Chicago gladly

supported the Illinois Central plan. They argued

that the city was poor and the assumption^{by the railroad} of the expense^{of the maintaining the} south side

levees ~~by the railroad~~ would more than compensate for any depreciation

in the value of residence property in the neighborhood.^{x46} Mass meetings

and parades were held by each side; circulars and petitions were widely

circulated; the newspapers took an active interest in the matter; and

both sides threatened to resort to legal proceedings to gain their

point. The fight was carried to the city council and this subject oc-

cupied the attention of the members^{during} the entire month of December. Both

sides ~~contested the franchise bitterly, but~~ The Illinois Central inter-

^{finally}ests gained the upper hand and on the 29th of December²⁹, they secured

the passage of the ordinance by a close vote of ten to six.^{x47} The main

^{x45} Chicago Daily Democrat, December 3, 1851.

^{x46} Ibid., daily notices during ~~the month of~~ January- December, 1851.

^{x47} Ibid., December 30, 1851.

features of the franchise were those embodied in the petition of the company with some minor exceptions. Among these was a reduction of the right of way from 12th Street to the river to three hundred feet. The restrictions upon the company were also made more severe.

The decision of the City Council did not settle the fight. Walter ⁴⁸Guerin was Mayor at the time, and on account of a number of minor objections to the ordinance as passed, and also on account of his general opposition to the policy of the measure, he vetoed the franchise. The

matter was again taken up in the Council and that body passed the or-

VETO OF FRAN-
CHISE BY MAYOR.

GURNEE AND PAS-
SAGE OF THE

SECOND ORDINANCE

ordinance over his veto. ⁴⁹The document was immedi-

ately forwarded to the directors of the company in

New York for their approval, but on the very day on

which the papers left the city, the whole matter was reconsidered by

the Council. The two opposing parties compromised their differences

and a new franchise, agreeable to the south side wards, was passed. It

was signed by Mayor Gurnee and forwarded to New York three days after

the first ordinance. ⁵⁰

The original franchise had been duly received in New York and the directors of the company, unaware of the amending measure and well satisfied with the provisions, accepted the old franchise. ⁵¹ Three days

THE DIRECTORS
REFUSE TO AC-
CEPT SECOND
ORDINANCE OF
JANUARY 2ND

later, much to their astonishment, there appeared the

second ordinance. Although similar in most ways to

the petition of the company there were some new re-

strictions upon the company which the directors did not desire to ac-

cept, and consequently the board declined to accept it and preferred to

wait for more favorable legislation. ⁵²

⁴⁸ Chicago Daily Democrat, January 1st, 1852.

⁴⁹ Ibid., January 3rd, 1852.

⁵⁰ Ibid., January 6th, 1852.

⁵¹ Ibid., January 10th, 1852.

⁵² Ibid., March 12, 1852.

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Supposing the first measure had definitely settled the questions under dispute in regard to an entrance into Chicago the President immediately directed the engineers to commence active construction work from Chicago to the state line. When the second ordinance was not accepted, the company, of course, had no legal right to enter the city, but rather than delay matters it was determined to complete the railroad from lake Calumet to the city limits at once.

ILLINOIS CENTRAL
BUILT FROM LAKE
CALUMET TO CITY
LIMITS BEFORE
NEW ORDINANCE

There was practically no danger of not obtaining a proper entrance to the city, and the construction of this section would provide the Michigan Central with its much desired entrance into Chicago without a protracted delay.⁵³ Much of the ground south of the city limits, especially near lake Calumet and Woodlawn, was low and marshy, and this made it necessary to place the tracks on trestle work at considerable additional expense. Rails and ties had been ordered in the fall of 1851 and by January, 1852, the first shipments had arrived. Grading and other preliminary work was commenced in December, and the combined energies of the Michigan Central and Illinois Central were exerted to finish the line from the Indiana border to lake Calumet and from there to Hyde Park.⁵⁴ Construction was continuedⁱⁿ when possible during the winter, and as soon as the weather permitted both companies placed large gangs of men at work. By the first⁵⁵ of May the railroad was within eight miles of the city limits, and three weeks later that short stretch was completed. On the twenty-first of the month, the first train, hauling gravel and construction materials, left Calumet and ran to the city limits.⁵⁶ Temporary freight and pas-

⁵³ Chicago Daily Democrat, January 10, 1852.

⁵⁴ Ackerman, Early Illinois Railroad, page 82.

⁵⁵ Chicago Daily Democrat, May 3rd, 1852; cf. March 25, 1852.

⁵⁶ Ibid., May 22nd, 1852.

senger stations had been established just outside the limits and on the morning of the ~~twenty second~~²² of May, this first completed section of the Illinois Central was formally opened, and a passenger train was run from Chicago to the state line.⁵⁷ Regular freight and passenger trains were placed in service a few days later. The Michigan Central made use of the tracks of the Illinois Central from Calumet to Chicago, and this piece of roadbed became the final link by which the former company established a through line from Chicago ^{to} the East.⁵⁸

The tracks from the city limits south were not completed without several sharp fights with the Southern Michigan, ~~people~~. That company opposed the construction of the road and endeavored to prevent the Illinois Central from crossing its tracks. It demanded that the latter company put in an overhead crossing at what is now Grand Crossing, which was refused. The difficulty could not be settled and each company refused to allow the other to put in any crossing at all. Finally the Illinois Central ^{impatient} ~~became~~ tired of this delay ~~and~~ sent a large gang of laborers to ~~a~~ build the crossing under cover of night. ~~DIFFICULTY~~ ~~AT GRAND~~ ~~CROSSING~~ The Southern Michigan was taken by surprise, its watchmen were overpowered, and the grade crossing was finished before morning. The Michigan company was forced to accept the situation and the last obstacle to the completion of this section was removed.⁵⁹

1⁵⁷ Chicago Daily Democrat, May 23, 1852; Ackerman, Early Illinois Railroads, p. 85.

2⁵⁸ Ibid; also advertisements of train service in Chicago newspapers ^{after} from June, 1852, on.

3⁵⁹ Chicago Daily Democratic Press, April 30, 1853.

The matter of Grand Crossing was a sore point between the two roads for several years. Within a few weeks after the crossing was put in, a bad accident occurred in which several lives were lost, and the two companies accused each other of having been to blame for not putting in an overhead crossing. However, evidence seems to show that both companies were equally to blame. Cf. articles in Chicago Daily Democratic Press, April 30, 1853.

This steady construction work, carried on regardless of the warring factions in the Chicago city council, exerted a strong pressure upon that body. This influence was furthered strengthened by vague rumors of a cut-off from Joliet to Calumet which would divert a considerable traffic from Chicago proper.⁶⁰ No attempt was made to press the franchise question until the twentieth of April, only a month before the railroad reached the city limits. Local objections still continued, but the pressure of the Illinois Central and Michigan Central overcame this opposition, and, finally, on June 14th, 1852, the Common Council passed the first ordinance originally passed on the 29th of December. The railroad was admitted to the city via the lake front route and was granted a three hundred foot right of way from Hyde Park to the Chicago River. In return for this grant, the railroad assumed the responsibility of protecting the lake shore along its right of way, and agreed not to put up any permanent buildings from Park Row to Randolph Street. Certain other obligations and restrictions were imposed upon the company, but, in the main, the franchise was greatly to the advantage of the railroad.⁶¹

With subsequent purchases of land between Park Row and the river, partly from private owners and partly from the federal government, the Illinois Central secured probably the finest terminal property possessed by any single railroad in the world. Its depot and shops were situated in the heart of the city and its right of way was between Grand Crossing and the river was not crossed by a railroad and for most of the distance not even by a highway. From the

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⁶⁰ Chicago Daily Democrat, May 3rd, 1852; ~~ibid.~~, May 15, 1852; Ackerman, Historical Sketch of the Illinois Central Railroad, p. 81.
⁶¹ Ibid.

the standpoint of the railroad, the right of way along the lake front was of almost inestimable value; from the standpoint of the public, ~~citizen~~ there is much to criticize in having the otherwise splendid lake front marred by smoky trains and unsightly railroad tracks, but it must not be forgotten that in the early fifties the bargain was in favor of the city. In protecting the many miles of shore line from the river to Hyde Park the railroad assumed a responsibility that was both troublesome and expensive, while, ~~at the same time~~, the city was relieved of expenditures amounting to tens of thousands of dollars a year, not an inconsiderable item for the Chicago of 1850. Nor must it be forgotten that this easy and uninterrupted entrance to the very heart of the business district ~~of the city~~ has been an important factor in the industrial development of the city.

Once the legal difficulties were removed, the work of construction proceeded with ~~great rapidity~~. Pails, ties, and piles were already on hand and within a few weeks after the passage of the franchise admitting the railroad to the city, the track was extended to 12th street. Temporary freight and passenger stations were built there and used until the permanent structures were finished. Much of the right of way was under water and heavy expenditure were necessary to put the tracks in a safe condition. The rails were laid on trestle work for nearly the entire distance from Hyde Park to Randolph Street and beyond the right of way a temporary breakwater of piling was erected. The pile and trestle work was to be filled in at a later time when the company's finances would justify the outlay.

62
Ackerman, Historical Sketch of the Illinois Central Railroad, pp. 80-~~to~~ 185; Annual Report, Illinois Central Railroad, 1855; Chicago newspapers, 1852.
The breakwater and trestlework was not filled in until after the Chicago fire of 1871.
1871

The company also purchased large quantities of land in the heart of the city near Randolph Street and expended something like \$250,000 in purchasing urban property, in addition to half a million more expended on the lake shore protection, virtually purchase money for the generous right of way granted by the city.⁴³ At the foot of Randolph

EXTENSIVE TER-
MINALS PROVIDED
AT CHICAGO

Street on land purchased from the federal government, the company, in 1853, commenced the erection of its famous Chicago passenger station, the total cost of which was over a quarter of a million of dollars. At the time it was the most expensive railroad station in the country. The facilities for handling passengers were excellent, and there was an abundance of room. The building was used jointly by the Illinois Central, Michigan Central and Chicago, Burlington and Quincy railroads, and the top floor of the station was used as a general office. North of the passenger station, the company erected a large in-and-out freight house, ^{which was} also the largest freight station of its kind in the country, and the largest brick or stone building in the city. At fourteenth street, near the present Park Row passenger station, were placed the terminal shops, roundhouses, and cleaning yards. Then, in 1856, the fourteenth street works of the American Car Company of Chicago were purchased and after that date most of the heavy engine and car repairs on the system were handled at these shops. A number of locomotives and cars were also built by the company at the ^{NEW} ~~fourteenth street~~ works. By 1855, nearly a million dollars had been expended by the company for construction, right of way, lake shore protection, buildings and other terminal improvements in the city limits. The work was continued during the following five years, ⁱⁿ which time an additional million was spent on the Chicago terminals.⁴⁴

⁴³ Annual Report, Illinois Central Railroad, 1855-~~to~~ 1860. Chicago Daily Democrat, January 1st, 1852, ^{1853, 1854, 1855, 1856, 1857, 1858,} 1858, 1860. Cf. Chapter vi, page 20.

Moreover, on June 23rd, 1852, the company secured an amendment to its charter permitting it to build a railroad from 12th Street to the south branch of the Chicago River.⁶⁴ This road, known as the St. Charles Air Line, served as an inner belt railroad for the Illinois Central, Michigan Central, Lake Shore, Chicago, Burlington and Quincy, Galena & Chicago Union, Chicago and Rock Island, and Chicago and Northwestern railroads. It was built by the Illinois Central and was completed in 1856 at a total cost of \$50,000.⁶⁵

While these large expenditures were being made at Chicago, work on other portions of the system was not being neglected. (According to the federal act of 1850 the company was given a right of way two hundred feet wide through the government land; the charter turned over to the promoters the old state right of way; and, most of the territory

ILLINOIS CENTRAL SECURES RIGHT OF WAY AND LOCAL CITY FRANCHISES through which the road ran was unoccupied land.⁶⁶ Thus, the company had little difficulty in securing ~~the~~ what right of way and station ground were needed.

Nor was there much trouble in obtaining village and town franchises. The Illinois Central created a majority of the villages and towns along its tracks, and it held the grounds before there was any municipal organization. The only ^{to granting a franchise} opposition was at Galena. The railroad, under both the state and Holbrook projects, terminated at that city, and the citizens were bitterly opposed to the extension of the line to Dunelith. They realized that the construction of the "Central" to that point meant the practical decay of Galena and consequent disaster to her business

⁶⁴ Laws of Illinois, Session 1852-1853, June 23, 1852.
⁶⁵ Annual Reports, Illinois Central Railroad, 1855-1856, 1857. The Illinois Central subsequently sold three-fourths of its interest in the St. Charles Air Line to the Michigan Central, Chicago, Burlington & Quincy, and Chicago and Northwestern.
⁶⁶ Cf. charter and federal act of September 20, 1850. Ackerman, Early Illinois Railroads, page 43.

interests. Since the extension of the road was an essential part of ^{the} act of Congress conferring the land grant, and the state charter there was no possibility of changing the provision. The city, however, placed numerous obstacles in the way of the railroad, and for several months refused to give the company a franchise. These tactics, of course, were childish, and the city council finally yielded. The railroad received the right to enter Galena, but only with many conditions and restrictions.⁶⁶

The matter of local franchises did not interfere with the commencement of construction work, and, as noted above, contracts for the entire road were let in the spring and early summer of 1852. ^{The Illinois's} Unlike ~~Central was more fortunate than most of the roads of the time in that it had considerable~~ most railroads of the time, the Illinois Central was not handicapped by ~~resources upon which it could draw at a moment's notice.~~ financial difficulties. The sale of the four million loan of February, 1852, and the five million sterling loan of June, the same year, together with subscriptions by the stockholders, provided ample funds for starting the work.² Part of the later loans, especially the Free Land issue of 1855-56, were placed at a considerable discount, but the money market fluctuations which brought this condition to pass, did not seriously interfere with the loans. Moreover, the capital stock of over fourteen million dollars was issued subject to assessment, and the directors always had this to fall back upon in emergency. Thus, at all times, the company had either in hand or in sight, whatever funds were neces-

¹⁶⁶ The following is taken from the Chicago Daily Democratic Press of March 15th, 1853:—"Permission is given the Illinois Central Railroad (by the city of Galena) to lay down and operate a road through the city upon a prescribed line, by locomotive engines. Permission was given the company to bridge Galena river within the limits of the city and a portion of the levee, three hundred feet in length, was appropriated for their use. The usual regulations in regard to use of streets, etc. was inserted. The company will spend \$10,000 under the direction of the city authorities for dredging the stream in front of the depot grounds.

² Cf. pp. 166-176.

sary to carry on the enterprise in the most economical and expeditious manner. Economy and good management were always observed, but the directorate was also in a position to push the work as much as possible. Materials and labor were paid for in cash or bonds equivalent to cash and payments were met promptly. With the exception of a few weeks after the assignment of 1857, all bills, contracts, notes or other obligations were liquidated when due, and the credit of the company was always high.⁶⁷ This condition was a decided contrast to the "hand-to-mouth" policy pursued by such southern roads as the New Orleans, Jackson and Great Northern or ^{any} western lines like the Ohio and Mississippi, and enabled the Illinois Central not only to finish the work within the limits set by the charter, but also to carry on the enterprise at a comparatively low cost.⁶⁸

^{Unsettled} Despite this strength, the management in Illinois was involved in several financial difficulties.^{during this period.} The most important related to the contracts for material and labor. The road was let to contractors in the spring and summer of 1852, and at that time Illinois FINANCIAL DIFFICULTIES WITH CONTRACTORS Central seven per cent bonds were selling at a slight premium. Accordingly, the directors stipulated that the terms for all work be one half cash and one half seven per cent bonds at par.⁶⁹ This arrangement was accepted, and the first payments were made on such a

⁶⁷ ~~cf. p. 176ff.~~ As stated in chapter vi, the assignment did not affect the credit of the Illinois Central to any great extent. The great bulk of the construction work was finished in 1855; the floating debts that could not be met were only indirectly related to contracts for construction.

⁶⁸ ~~Chicago Daily Democrat, March 25, 1852; also advertisement.~~

In chapter vi a statement is made that the company was forced to pursue a hand-to-mouth financial policy. This was true; at the same time there was always sufficient funds in the treasury to meet the contracts when due. ~~It~~ The condition was similar to what occasionally exists on any large railroad when financial stringencies prevent the floating of bonds at favorable terms and the company is forced to sell short term notes at a discount. However, this lack of funds very seldom affects employees of the company or creditors, although it does make any new work more expensive on account of the difficulty of obtaining cash.

basis. The contracts were also based on the prices prevailing in 1852, and on account of the competition between bidders they were taken at low figures. During 1853 and 1854 the price of bonds, materials and labor remained approximately the same as in 1852. But about the time of the Schuyler frauds various influences combined to depress the quotations of Illinois Central bonds, while the ^{rising prices} general prosperity increased the cost of railroad supplies and labor throughout the entire country. This was especially severe in Illinois on account of the large amount of railroad construction and the abundant crops, which made enormous demands for unskilled labor. Naturally, the contractors were unwilling to stand the decline in bonds and increased cost of construction, and asked for additional compensation from the company. Where definite contracts had been made the management refused to make any radical changes. Most of the contractors, however, had taken up the work in such a way that the company could not force them to continue at the old terms, or else did not feel it desirable to do so. Under the circumstances, the provision making half payment in bonds was not carried out, and the ^{payments} to the contractors ^{were} largely increased. In spite of this reasonable action by the railroad many contractors surrendered their contracts and threw the unfinished work back upon the company. ⁷⁰

70 Cairo Mirror and City Directory, 1864-65; letter of W.H. Osborn, dated, N.Y., Oct. 16, 1855, quoted in Railway Times, November 10, 1855; Official communication from the Board of Directors, dated, November 7, 1854, quoted in Railway Times, November 25, 1854; Satterthwaite's Report, Railway Times, July 22, 1854. The greatest difficulty was experienced in the divisions north of Cairo and near Decatur.

71 The Illinois Central profited by the depression and fluctuations in prices of labor and supplies. The following statements taken from the report of Mr. F. E. Satterthwaite, American correspondent of the Railway Times, in the number for July 22, 1854, are interesting:

(continued on page 70) →

In most of these cases the directors did not enter into new contracts, but carried on the work under its own division superintendents. Somehow, ^{the} ~~the most difficult~~ portions of the line were ~~those surrendered,~~ ^{and the most difficult,} and the responsibility placed upon the company's engineers was large.

COST OF CONSTRUCTION
INCREASED BY HIGH
PRICES OF LABOR AND
MATERIALS AND SURREN-
DER OF CONTRACTS

The most important of these divisions were the ones from Cairo to Carbondale, ^{thence} and around Pe-
catur. ⁷¹ But the same difficulties which en-

hanced the cost to the contractors made the work more expensive for the company. As most of the responsible work, such as bridges, trestles, buildings, culverts, and the heaviest pieces of grading, was performed directly by the railroad the advance in prices had an important effect. As high as \$1.50 per day was paid for ordinary section labor and proportionate wages for skilled workmen. ⁷² The result of greater wages and prices on company work and larger compensation for contractors was a general advance in the cost of building the road, amounting to several millions. ^{of dollar} The estimate made by Colonel Mason was found to be much ~~lower~~ ^{about} lower than was really the case. At the ^{about} same time between one and two million of bonds, taken by contractors in 1852 and 1853, were returned

⁷¹ Cairo Mirror and City Directory, 1864-65; Official communication from the board of directors, ~~dated~~ ^{dated} November 7, 1854, quoted in Railway Times, November 25, 1854.

⁷² Ibid.

(Continued from page 69) "The first thing done was to buy the iron for the whole road at \$45 per ton for bonds at par. In six months after the purchase the value of iron doubled, by which the company saved \$1,500,000. The high character of the company and the rapid progress of the road commanded confidence so that the company was enabled to sell the whole of the \$17,000,000 at par (sic), with the exception of the February (1854) issue. The sales were made payable in instalments which will be completed in July next....." Mr. Satterthwaite undoubtedly exaggerates the profits made from buying the iron and other supplies, nevertheless the saving was considerable. For instance, the N.O.J.&G.N. paid \$85 per ton for poorer rails than the Illinois Central paid \$45, but this was affected slightly by the lack of confidence in the southern road. There was also some saving made in contracts, which the contractors were forced to live up to.

Continued on page 71.

to the company in a way ^{that} to depress the market for Illinois Central securities (and, consequently, ^{was depressed} made it ^{even} harder to secure money. ⁷³ 1

Aside from these difficulties, the management had little to contend with beyond the general engineering problems involved in such an extensive enterprise. The prairies of Illinois offered an almost ideal location for a railroad, and except for somewhat difficult construction on three or four divisions, the building of the road proceeded without serious delays. Even in the bluffs along the Illinois and Cache rivers the engineering problem was extremely simple compared with the building of the Union Pacific or many eastern lines. The greatest trouble was found in the distance of the work from the older parts of the country and high cost of transportation. The labor problem was solved by the employment of foreign laborers, largely Irish. In fact the road was built almost entirely by this class of workmen. At one time nearly ten

⁷³ Most of the bonds taken ^{by} ~~from~~ contractors were returned to the company after the Schuyler frauds, when the price of seven per cents had dropped to 64.

The following quotations are taken from the report of the board of directors November 7, 1854, quoted in Railway Times, November 25th 1854:-- Speaking of the portion near Decatur it states "The forty miles includes a section of country extremely unhealthy and of a broken, uneven character, which circumstances have presented great obstacles to the prosecution of the work and have caused serious delay upon this the third division. During the summer, it was found impossible to continue work and until recently the prevalence of malignant fever and (colera) in the vicinity of the low marshy tract several miles in extent almost suspended operations..."

"Relative to the expenditure upon the construction of this line, the original estimate of Colonel Mason was \$16,500,000 has advanced in the report of the President....and after he had closed his agreements with contractors for nearly all the divisions he had left a margin ~~x~~ considered fully adequate for contingencies. The rate of wages throughout the state was at or below one dollar per day, with abundance of labor. Last December, owing to the immense demand for railway laborers and general advance in the rates of labor from \$1.25 to \$1.50 per day was paid for common labor and from \$2.50 to \$3.00 per diem for masons, carpenters, etc. The direct consequence of this was the failure of several of the contractors to fulfill their obligations and the demand by others for increased rates upon their estimates.....None of the contrac

(continued on page 72.

thousand men were working on the road, but the need of help on the farms and demand by other railroads prevented the Central from keeping all the men it needed. The transportation of materials also caused much expense and trouble. Rails, bridge iron, equipment, and other railroad materials were carried from the eastern states and England to Cairo, Chicago, and Dunleith by water. From those places they were either hauled by wagon across the country or else carried on the rivers, the canal, and the Galena and Chicago Union railway as near the construction work as possible and then hauled by wagon. This method, at best, was slow and expensive, and ^{resulted in} considerable delay was caused. Supplies for the men were hauled long distances by teams, as most of the country through which the road went was sparsely settled.

(1) (Continued from page 71) tors did or would receive the bonds originally agreed upon in part payment and the company were obliged to pay advances of 25% on nearly all of the labor upon the line, which has increased its cost upwards of two million dollars.

"Early this summer the cholera, in its most virulent form appeared in Illinois. The laborers left the road en masse. It was hoped that work would be continued and the lives of our valued chief engineer and others engaged in the superintendence of the construction were at great hazard. At this critical moment a crisis in railway affairs occurred which rendered the negotiation of the best railway securities almost impossible. This company's payments ~~amounting~~ maturing in July and August exceeded two millions of dollars. The absolute necessity...to complete the main line has involved a large monthly expenditure and our payments since July 1st exceeded \$4,300,000. This has been accomplished by the unremitting attention and personal exertion of the members of the board for the last four months."

The Irish laborers employed upon the railroad were a lawless set of men and created considerable trouble in the territory where they were working. The men were kept in camps near the construction work, but frequently they would escape their foremen and become gloriously drunk. At these times the laborers were a grave menace to the citizens, especially the people on the isolated farm houses. Frequent clashes took place between the citizens and the laborers. However, many of the men employed on the railroad remained in the country and took up farms and became valued citizens. Quite a large number of the families along the Illinois Central originated with laborers employed on the road.

In spite of these obstacles the work progressed rapidly. According to the charter the main line was to be completed within four years and the branches within six, or by September, 1855, and 1857, respectively,¹ but the acts of June 23, 1852 and February 12, 1853,² extended the time of completion of the Galena branch four years and provided that the construction of fifty miles of track between La Salle and Bloomington by June 15, 1853 would satisfy the requirements of the charter.³ The provision of the charter and amendments setting a time within which the road had to be finished and the large investment in the property forced the directors to complete the railroad as soon as possible. The company was incorporated on the 10th of February, 1851 and legally organized the 19th of the following March.⁴ On May 23rd of the next year the portion from Chicago to Kensington was finished and contracts let for the remainder of the road.⁵ Other sections were completed in rapid succession until, by the 1st of January, 1855, all the main line and over half of the Galena and Chicago branches were in operation.⁶ During the next six

1 Paragraph 3, section 15, charter.

2 Acts of June 23, 1852, and February 12, 1853, section I. Cf. Appendix.

3 Ibid. The charter provided that the company should deposit \$200,000 as a guarantee of good faith and that this sum should be forfeited unless the prescribed portion was finished within the specified time limits.

4 Cf. page 45.

5 Cf. page 53.

6 Cf. pages 61, 62.

The following "History of Construction" is taken from the Chicago Daily Democratic Press, being quoted in the American Railroad Journal, October 25, 1856:--"Published contracts were first made in June, 1852, and the grading of the 1st, 2nd, 6th, 8th, 9th, and 10th divisions let. On the 14th of October following the 3rd, 4th, 5th, 7th, 11th, and 12th were put under contract.

In July the first instalment of the first English loan was paid and it was not until this payment had been made that the originators of the enterprise had confidence in its success. In March, 1853, Colonel Mason was elected Superintendent.

(Continued on page 74)

months the remainder of the Galena branch, and the Chicago branch as far south as Mattoon, was finished, leaving only the line from the St. Louis and Terre Haute railroad to Centralia, seventy seven miles, incomplete. ⁷⁵ The financial difficulties of 1855, lack of labor, and the fact that the company already had a connection with the main line by way of the Great Western from Tolono to Decatur and the Terre Haute road from Mattoon to Pana, made it unadvisable to finished the work before September, 1856. ⁷⁶ The last rail was laid on September 26th and the entire system was thus fully completed. ⁷⁷

⁷⁵ American Railroad Journal, October 25, 1856.

⁷⁶ Ibid.

(Continued from page 73) On the 16th of May the first sixty miles of the Illinois Central from La Salle to Bloomington was opened for business, and the company commenced working the road on its own account. The following are the dates of opening by sections:--

MAIN LINE, CAIRO TO LASALLE, 308 MILES.

LaSalle to Bloomington	60 miles	May 16, 1853.
Bloomington to Clinton	23 "	March 14, 1854.
Clinton to Decatur	22 "	October 18, 1854.
Cairo to Sandoval	118 "	November 22, 1854.
Decatur to Sandoval	85 "	January 1, 1855.

GALENA BRANCH, LASALLE TO DUNLEITH, 146 MILES.

Mendota to La Salle	16 miles	November 14, 1853.
Freeport to Warren	25 "	January 9, 1854.
Warren to Scales Mound	14 "	September 11, 1854.
Scales Mound to Galena	12 "	October 30, 1854.
Mendota to Freeport	62 "	February 1, 1855.
Galena to Dunleith	17 "	June 12, 1855.

CHICAGO BRANCH, CHICAGO TO CENTRALIA, 250 MILES.

Chicago to Calumet	14 miles	May 15, 1852.
Calumet to Kankakee	42 "	July 11, 1853.
Kankakee to Spring Creek	31 "	December 2, 1853.
Spring Creek to Pera	22 "	May 18, 1854.
Pera to Urbana	20 "	July 24, 1854.
Urbana to Mattoon	44 "	June 25, 1855.
Mattoon to Centralia	77 "	September 27, 1856."

As most of the territory through which the Illinois Central passed was but thinly inhabited the stations established by the company grew into villages and cities. In consequence, the naming of these places devolved upon the officers of the company, especially Mr. Calhoun, the Local Treasurer. Most of the towns were given Indian names, while nearly all the others were named after various persons connected with the organization of the railroad:-- Among

(Continued on page 75)

The above is a list of the names of the persons who have been
 named in the report of the committee on the subject of the
 proposed amendment to the constitution of the State of New York.
 The names are given in alphabetical order of the surnames.
 The names of the persons who have been named in the report of the
 committee on the subject of the proposed amendment to the
 constitution of the State of New York are given in alphabetical
 order of the surnames.

List of names of persons named in the report of the committee on the subject of the proposed amendment to the constitution of the State of New York		
Adams, John	1	Adams, John
Adams, John	2	Adams, John
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Adams, John	99	Adams, John
Adams, John	100	Adams, John

Although formally opened in September, 1856, the railroad was only partially completed. Many of the station buildings were not built, fencing, ballasting, construction of levees and piling at Chicago, Cairo, La Salle, and Dunleith was incomplete, and much of the bridge and culvert work was of a temporary nature. The equipment was also inadequate. Thus, the expenditures during the fall of 1856 and ^{during} ~~all of~~ 1857, were very large. By the close of the latter year everything was finished, ^{and} further construction work was confined to extensions and ^{to providing for} the demands of increasing traffic.^{77.1}

Compared with the present charter lines of the Illinois Central, the construction was poor and equipment almost ludicrously inadequate. Only a portion of the road was ballasted with gravel, none with stone. The embankments were narrow and the roadbed was greatly inferior to present Illinois Central standards. Bridges, culverts, and trestles ^{work} was weak and unadapted to heavy loads. Freight houses were poorly arranged, and the terminal yards were ~~a~~ mere collections of tracks, without any definite system. Locomotives, both freight and passenger, were light, the heaviest weighing only thirty tons, and ^{all} used wood instead of coal. Eight tons was the maximum load ^{for} of freight cars, while the proportion of tare to net load was about one to one. In 1857 most of the coal, and some of the house cars, had only a single pair of trucks, while those possessing two trucks were classed as two cars. The passenger equipment lacked most of the conveniences now regarded as essential---steam heat, air brakes, ventilators, improved springs, automatic couplers, vestibules, good lights. No sleeping cars were included in the equipment of the road when finished.^{78.2}

1⁷⁷ Annual Report, Illinois Central Railroad, 1855; 1856, 1857.
2⁷⁸ Ibid.; cf. chapters in Ringwalt, Development of Transportation Systems in the United States.

However, the Illinois Central, in 1857, was the best built railroad in the West and as good as most eastern lines. The total cost of construction was \$26,568,017.61, or \$37,600 per mile, of which some twenty one millions was expended on roadway, buildings, etc.⁷⁹ In no sense of the word could the construction work be regarded as temporary.

WHEN FINISHED IL- Passenger and freight stations and other buildings
 LINOIS CENTRAL were of a permanent character, generally stone or
 ONE OF THE BEST brick. The roadbed was well built, according to
 BUILT RAILROADS IN THE COUNTRY the standards of the time, and was laid with heavy sixty pound iron T
 rails, placed on chairs.⁸⁰ Sidings were ample for the traffic of the
 period, and much of the line was adapted for double tracking. Bridges,
 were made of iron, with stone abutments, and the culverts were generally

⁷⁹ Cf. Chapter vi, page 213 and appendix, page 2

⁸⁰ The rails were of exceptionally good material and according to Mr. Ackerman; some of them were in use as late as 1881. p. 42. (Continued from page 74) or otherwise of interest the places named by Mr. Calhoun the following are the most important:-

Matteson, named after Governor Joel Matteson; Monee, of the Pottawatomie tribe, was the wife of the Indian trader Joseph Bailey; Peotone, "A Pottawatomie Indian word, meaning bring or come here"; Manteno, Probably a corruption of Manitou or Manito--Algonquin for spirit. Another authority states that Manteno is the Pottawatomie for Soldier's Village.

Kankakee, taken from the French name for the Kankakee river; Ashkum. Named after an Iriquois Indian chief, meaning "more and more".

Paxton. Taken from ene-ef- Named & by James Mix of Kankakee in honor of Sir Joseph Paxton, about the time the latter was largely interested in immigration.

LUDLOW. Named after Thos. W. Ludlow, of New York, one of the incorporators of the Illinois Central Railroad, as appears by the charter. It was called Pera prior to 1868, by J.B. Calhoun.

Rantoul. Named at the request of W.P. Burrall, at one time president of the Illinois Central Company, after Robert Rantoul, Jr.

CHAMPAIGN. Urbana, the country-seat, adjoining on the east, was settled by emigrants from Urbana, Champaign, County, Ohio, who named the new settlement after their old home.

TOLONO. Named by placing the vowel o three times thus, o-o-o, and filling in with the consonants t-l-n, forming Tolono, by J.B. Calhoun, who, in company with J. Condit, purchased the land and laid out the town.

Mattoon. Received its name from a person bearing the name of J. Mattoon, of Barnes, Phelps and Mattoon of Springfield, Mass., who, as contractors, built the Terre-Haute &

Alton Railroad. Cf. Ackerman, Early Illinois Railways, p. 109-52

built of stone. The line, following the original surveys, was straight and free from heavy grades or sharp curves. Terminal facilities were ample and permitted extensive additions without a large expenditure for land or right of way. The equipment was more than sufficient for the needs of the railroad when completed. Both locomotives and freight and passenger cars were up to the highest standards of the period and, with slight exception, the rolling stock was entirely new. On the whole, the railroad conformed to the provisions of the charter, and "was made equal, in all respects, to the road leading from Boston to Albany, usually known as the Great Western, with such improvements as experience have shown to be expedient." ~~1~~⁸⁴

~~81~~ *Charter, Illinois Central Railroad,*

~~1~~⁵ *TP*
Section 15, paragraph 3.

C H A P T E R IV.

CONSTRUCTION AND DEVELOPMENT, 1857 TO 1870.

The construction of the roadbed and buildings and the purchase of rolling stock was merely the first step in the development of the Illinois Central System. Traffic had to be secured, markets found for the products of the territory tributary to the railroad, and the agricultural and manufacturing interests of that region stimulated; an operating organization was necessary and provision had to be made for

CONSTRUCTION OF THE
ROAD MERELY THE FIRST
STEP IN THE DEVELOP-
MENT OF THE ILLINOIS
CENTRAL SYSTEM.

the rapid and economical handling of both
freight and passenger business. As a further
step there came the formation of traffic al-

liances with connecting or branch railroads, trackage agreements for the use of certain desirable pieces of track, organization and maintenance of pools and similar arrangements, and finally the physical extension of the railroad through the lease of old lines or the construction of new. These were the problems before the management, in 1857 and their solution is the real history of the company.

The organization of the various departments was ^{developed} ~~a~~ gradual ~~evolu-~~
~~tion~~. During the first three years of construction the operating side was handled by the Chief Engineer, Mr. Mason, and the net receipts from the traffic went directly into the construction account. Later Mr.

Mason was made General Superintendent, and a separate operating department was created.¹ In 1855 Mr. Arthur was made General Superintendent in place of Mr. Mason, who resigned,² and he, in turn, was succeeded by George B. McClellan, Commander in Chief of the federal armies during the Civil War. By 1855 most of the road was completed and the traffic was large enough to make a complete ^{new} organization necessary. Accordingly traffic, maintenance of way and equipment, operating, financial, and legal departments were established under the supervision of the General Superintendent. The president did not transfer his offices to Illinois until several years after the construction of the road and the board of directors has always kept New York as its official meeting place. For that reason it was necessary to have some ranking executive officer in Chicago, and Mr. Arthur, Mr. McClellan, and their successors in the office of General Superintendent had full charge of all operating matters, subject, of course, to the approval of the president and board of directors. Otherwise the organization of the railroad was similar to that of other companies doing the same kind of work.

As soon as a stretch of track was completed, freight and passenger service was commenced, and the train service of the company was, thus, a gradual evolution. In the passenger department the standard service was two trains a day in each direction over all important sections of the road. In addition such extra trains were run as the traffic demanded, but from 1857 to 1870 this standard of two trains a day in each direction was maintained.³ The freight traffic was more irregular and the service conformed to the special needs of the season. (To 1859 the train mileage of the ~~the~~

1 Ackerman, Early Illinois Railroads, page 43.

2 Ibid., page 44.

3 Annual Report, Illinois Central Railroad, 1855 to 1870.

freight and passenger departments

branches remained about the same, with the passenger train mileage in the lead.⁴ As freight traffic developed, it became necessary to increase the number of trains until by 1870 there was an average of five freight trains a day in each direction.⁵ By that time most of the mixed trains had been taken off, and the separation of the two branches was complete. In addition to the regular passenger service the company established a suburban service from Hyde Park and later ^{from} towns as far south as Kensington to Chicago.⁶ From the commencement of passenger service the trains carried both mail and express. According to the federal act of September 20th, 1850, the railroad was obliged to carry what mail the Post Office Department directed on terms prescribed by Congress.⁷ Mail was handled on all regular trains, and the Illinois Central became one of the most important arteries of the Post Office Department. The Adams Express company was given a monopoly of the express business in 1856, and a regular system was installed.⁸

Even before trains were put in operation it was necessary to issue tariffs. Rate matters, however, were in a chaotic condition and no formal tariff sheets were printed. In some respects the regulations

TARIFF MATTERS as to the making of rates were much stricter than in IN A CHAOTIC CONDITION later years. The number of different rates was small

and it was an easy matter for the General Superintendent or even the President to adjust the charges personally. On ^{other} ~~the~~ hand, most shippers regarded railway rates in the same light as ordinary business transactions---a matter of individual bargaining, and tariffs were often adjusted by the local station agent.⁹

1 ⁴ Annual Report, Illinois Central Railroad, 1855 to 1859.

2 ⁵ Ibid., 1870.

3 ⁶ Ibid., 1856.

4 ⁷ Act of September 20th, Section 6.

5 ⁸ Annual Report, Illinois Central Railroad, 1856.

6 ⁹ Statement of , Cairo, Ill., station agent at Calumet, 1857.

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The railroad was just getting the various departments ^{as} ~~outlined~~ ^{well organized} above into good working shape when the development of the road and the country tributary to it was arrested by the panic of 1857, the assignment of that year, and a series of droughts and crop failures. The ~~results of the~~ traffic of 1856 and the early part of 1857 promised a rapid development of the business of the company. ¹⁰ ~~when these hopes were~~ ^{ruled} ~~shattered by the panic of 1857, followed by the temporary as-~~

PANIC AND ASSIGNMENT
OF 1857 AND CROP
FAILURES ARREST
GROWTH OF THE RAIL-
ROAD UNTIL 1860

¹¹ ~~assignment, put a sudden stop to this growth.~~

In the last three or four months of ¹⁸⁵⁷ ~~the year~~

shipments and earnings decreased considerably.

The next year, 1858, a severe drought ruined much of the corn and wheat, and in 1859 prices for grain were so low ^{that} the farmers did not find it profitable to market ^{their} ~~what~~ ¹¹ ~~corn and wheat, they had.~~ ¹² Instead of the income of the road increasing it actually declined in these two years, and the net revenue did not provide for a third of the interest charges accruing during the period. ¹³ ~~5~~ New construction work was suspended, purchases of equipment cancelled, and maintenance work reduced as much as practicable, but even these savings did not prevent the decrease in net earnings. The shareholders were forced to pay ^{on their stock} ~~further~~ assessments, and the railroad received a setback which was not overcome for three or four years. ¹³ ~~4~~

By 1860 conditions were again normal, and the first few months of 1861 were the most profitable the company ^{had} enjoyed to that time. But this prosperity was ^{temporarily} ~~again~~ checked ¹¹ ~~at~~ this time by the commencement of the Civil War. State troops were rushed to Cairo the first week in May,

- ¹⁰ Annual Report, Illinois Central Railroad, 1855 to 1857.
- ¹¹ Ibid., 1858, 1859.
- ¹² Ibid., cf. page 207 and chart.
- ¹³ Ibid., 1860.

and during the next four years the regular business of the railroad was constantly interrupted by the demands of the Government.¹ The outbreak of hostilities destroyed southern shipments of grain and merchandise from Cairo and, for a time, checked the growth of Illinois. Traffic

BUSINESS OF THE RAILROAD INTERRUPTED BY THE COMMENCEMENT OF THE CIVIL WAR declined and the officials of the company were left without plans on account of the rapid change in affairs. At the same time the working force of the company was disorganized by the enlistment of men in the army and the sudden demands of the War Department for transportation of troops or supplies.² Thousands of men were sent south to Cairo via the railroad and immense quantities of grain, meat, ammunition, and other materials for the armies were forwarded in the same direction. In all cases precedence was given to trains carrying troops or government supplies, and the regular working of the road was constantly delayed. Moreover, these sudden calls reduced the amount of equipment available for other uses, and the company was compelled to pay heavy damages for failure to furnish cars.³

Nevertheless, the war aided the railroad more than it damaged it. The development of manufacturing in the eastern states and the needs of the army created a demand for the products of Illinois and several times as much grain was handled during the closing years of the war as in 1857 to 1860.⁴ Furthermore, the army traffic was profitable, although the provisions of the land grant act and the charter compelled the company to carry both troops and supplies at reduced rates. From 1862 until the close of the war the railroad was utterly unable to handle the freight offered it.⁵

- ¹ Annual Reports, Illinois Central Railroad, 1861 to 1865.
² Ibid., Ackerman, Early Illinois Railroads, pp. 45, 46.
³ Ibid., 1865.
⁴ Ibid., 1861 to 1865, cf. chapter v, pages
⁵ Ibid., 1862-1865.

As a result both gross and net earnings increased more than two fold during the conflict, and in 1865¹⁸ were sufficient to provide for dividends on all the stock outstanding.¹ The same influences which brought about the traffic development of the Civil War period produced an even greater growth in the next five years, and the earnings of 1869 and 1870 were well ahead of those of any previous years.¹⁹

On the other hand the Civil War^{made impossible the use of the north and south lines} inflicted almost incalculable injury upon the system. The Illinois Central was primarily a north and south railroad, and the officials of the company, in 1859 and 1860, had managed to build up a fairly lucrative trade with the southern Mis-

CIVIL WAR PREVENTS
THE ILLINOIS CENTRAL
FROM DEVELOPING ALONG
NORTH AND SOUTH LINES
AS ORIGINALLY INTENDED

issippi Valley states. This was destroyed by the war and for four years all the grain traffic of the West was sent east to the At-

lantic seaboard. When the war was over the resources of the south were gone, and the company was unable to revive its north and south business for a number of years.²⁰ The prosperity of the period under discussion was unnatural, and even occurring after 1870 inflicted serious damage upon the company.

Most of the growth of business from 1857 to 1870 occurred on the charter lines of the company, but it was aided by a number of extensions and traffic alliances made at various times. The Illinois Central was built in the shape of a Y^{in fact} and consisted entirely of main line,

ILLINOIS CENTRAL
MAKES IMPORTANT
CONNECTIONS

although the portion from Chicago to Centralia and from Dubuque to La Salle were^{the} classed as branches.

As a result the territory directly tributary was confined to the limited area within fifteen or twenty miles of the tracks. Moreover,

¹ 18 Annual Report, Illinois Central Railroad, 1865.
² 19 Ibid., 1869, 1870.
³ 20 Ibid., 1861, 1862 ff.; Report of the Delegates Appointed by the English and Dutch shareholders, 1877.

At a meeting of the Board of Directors held on the 10th day of January 1881, the following resolution was adopted: That the sum of \$100,000 be appropriated for the purpose of purchasing land for the establishment of a new college in the city of New York. The sum of \$100,000 was accordingly paid to the City of New York for the purchase of the land. The land was then divided into two parts, one of which was given to the City of New York and the other to the State of New York. The City of New York then built a building on the land and the State of New York built a building on the land. The two buildings were then joined together and the new college was established. The college was then named after the person who had given the land to the City of New York. The college was then opened and the first class of students was received. The college has since that time been a great success and has produced many of the most distinguished men of the country.

Witness my hand and seal this 10th day of January 1881.
Attest:
J. B. Smith, Secretary

there was no connection between the Chicago branch and the main line, resulting in great inconvenience to the company. As a remedy for the first of these evils the company, from 1855 to 1870, built up a system of semi-subsidiary branch lines. Until after 1860 the Illinois Central was the largest and strongest railroad in the central west and, thus, was in a position to assist smaller roads. In pursuance of such a policy, the railroad, either by direct action of the directors or else through the personal efforts of individual members, helped several east and west lines. Among the most important were the Great Western (now the Wabash) from the Mississippi to Danville; the Terre Haute, Alton, and St. Louis (St. Louis Division of the C.C.C. & St.L.) from Alton to Terre Haute; the Ohio and Mississippi (Baltimore and Ohio Southwestern) from Illinoistown (E. St. Louis) to Cincinnati; and the Mineral Point (Chicago, Milwaukee and St. Paul).²¹ All of these lines have developed into important east and west ~~trunk~~ ^{main} roads, but in 1855 to 1865 or 1866 the cost of rail transportation made it impossible for them to carry grain from Illinois eastward. Moreover, several of the companies were without eastern connections until the early sixties.

In addition to the transverse or semi-branch roads the Illinois Central lent its aid to four other companies in an effort to establish a connection between the two arms of the system. In 1852 or 1853 an arrangement was made with the Galena and Chicago Union, by which the latter should not build its line beyond Freeport, but instead should

ATTEMPTS TO PRO- use the tracks of the "Central", while the latter
VIDE CONNECTION should have trackage rights over the former's line
BETWEEN THE MAIN
LINE AND THE CHI-
CAGO BRANCH from Freeport to Chicago.²²

From 1854 to 1858 or 1859 this connection proved of great service to the company. But about 1857 disputes arose between the two railroads, and the Illinois Central

²¹ Annual Report, Illinois Central, 1855 to 1870.
²² Ibid.

was able to make more advantageous arrangements with the Chicago and Northwestern at Dixon and later ^{with} the Chicago and Burlington at Mendota.¹ None of these agreements allowed the "Central" any profit on the transfer of freight between the branches, while the movement of equipment was handicapped. The result was a third attempt to establish a satisfactory connection. This time it assisted the Logansport, Peoria, and Burlington, later the Peoria and Oquaka, (now the Toledo, Peoria and Western branch of the Pennsylvania system) in floating its loans, took part of the company's bonds and secured trackage rights from El Paso to Gilman. The terms were favorable to the Central and the arrangement was made permanent by a provision that a certain percentage of the gross earnings of interchange business should be invested in Peoria and Oquaka bonds.² Through trains were run from the main line to the branch and the arrangement was so satisfactory ^{that} it was continued until the company built its own line. At various times prior to 1860 the tracks of ~~other companies~~ were used to provide a connection between the two parts of the system, ~~namely~~ the Great Western, Terre Haute, Alton and St. Louis, and Ohio and Mississippi, but ~~they~~ were merely ^{these arrangements} temporary.³

In addition to the agreements mentioned above, the Illinois Central had close relations with the Terre Haute, Alton and St. Louis. As soon as that line was built from Alton to Pana, a trackage agreement was made by which through trains were run from Chicago to St. Louis. In fact the Terre Haute-Illinois Central line was the first through line ~~from~~ between those cities. Solid trains were handled, besides coaches and

¹ ²³ Annual Report, Illinois Central Railroad, 1857 ~~to~~ 1860. The cars were hauled through without breaking bulk.
² ²⁴ Ibid., 1858, ~~1859~~, 1860.
³ ²⁵ Ibid., 1855, ~~1856~~, 1857.

²⁶ sleepers.¹ The distance by this route was not much longer than over the St. Louis, Alton and Chicago and it was regarded as an important rival of the latter, especially from 1857 to 1860.²⁷ Towards the close of the period a further connection was established between the Illinois

TERRE HAUTE, ALTON Central and St. Louis by way of the Belleville, & ST. LOUIS FORMS and Southern Illinois, and DuQuoin. The ^{latter company,} CONNECTION BETWEEN ~~Belleville and Illinois town,~~ ^{a lease of} ST. LOUIS AND IL- ~~leased to the Terre~~ LINOIS CENTRAL,

Haute company, was finished in 1869, and through connections were immediately established. Three express trains a day in each direction were run from St. Louis to Cairo, and the "Cairo Short Line" as it was termed proved profitable for both companies.²⁸

While these arrangements were of great value to the Illinois Central, it made the serious mistake of pursuing ^a too conservative a course. Several of the roads, for example, the Mineral Point, Great Western, Peoria and Oquaka, and Chicago, Fulton and Iowa (Northwestern) could

COMPANY COMBITS have been leased or purchased on favorable terms. SERIOUS MISTAKE If this had been done it would have prevented their IN NOT KEEPING POSSESSION OF development into rival systems, and would also have CONNECTING LINES

furnished the "Central" with the necessary branches. Instead, loose traffic agreements were made and all of these lines grew into strong competitors, while the Illinois Central in 1870 had ^{practically no} no branch or connecting lines ^{to speak of.}²⁹

There was one exception to this statement. Of all the railroads connected with the "Central" from 1856 to 1870 only one became a permanent part of its system.³⁰ This was the Dubuque and Sioux City Rail-

^{1 26} Annual Report, Illinois Central Railroad, 1856ff; cf. advertisements in St. Louis newspapers.

^{2 27} Ibid.

^{3 26} Railroad Gazette, Vol. II, p. 252.

^{4 29} Report of the Delegates Appointed by the English and Dutch Shareholders, 1877.

³⁰ Except Belleville and Southern

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road of Iowa. Originally chartered as the Dubuque and Pacific, before the Civil War, it was finished during that period, being built westward from Dubuque.³¹ As soon as a short portion beyond Dubuque was finished a traffic agreement was made with the Illinois Central for mutual exchange of freight.³² Both roads developed rapidly, and by 1867⁶⁷ this interchange of freight was of considerable value, especially to the Illinois line.³³ At first the "Central" was the only company connecting the Iowa company with Chicago or Milwaukee, but in 1866~~6~~ 1867 other railroads, principally lines now forming the Chicago, Milwaukee and St. Paul System, made traffic agreements with the Dubuque and Sioux City, and threatened to divert its traffic to Milwaukee.³⁴ In order to prevent the loss of such a valuable feeder, the directors of the Illinois Central leased the Iowa lines for twenty years, the first ten at thirty five per cent of the gross earnings and the next ten at thirty six per cent, with the right of perpetual lease at the latter figure.³⁵ The Iowa lines were easily worked and, on the whole, this arrangement was reasonable.

But
However, the Dubuque and Sioux City was building two subsidiary companies, lines, ~~through~~ the Iowa Falls and Sioux City and the Cedar Falls and Minnesota, ~~and~~ To obtain the parent company it was necessary to lease the branch lines on the latter's own terms. The Dubuque and Sioux City LEASE OF IOWA FALLS & SIOUX CITY A BURDENT TO THE CENTRAL was built by persons closely connected with the Credit Mobilier and the Union Pacific, and ^{they} applied similar methods to the construction of the Iowa company.³⁶ A majority of the board of directors of the Dubuque corporation organized the Iowa Falls and Sioux City Railroad Company and also a construction

³¹ Annual Report, Dubuque and Sioux City, May 31st, 1864. Railroad

³² Ibid.

³³ Annual Report, Iowa State Agricultural Society, 1861ff.

* See note page 212

company, with which the railroad company made a contract to build the road in return for a certain amount of stocks and bonds per mile. Then as directors of the Dubuque and Sioux City they leased their own road, before it was constructed, to the Dubuque and Sioux City for a minimum annual rental of \$1500 per mile, which amount just covered the interest charges on the bonds they had agreed to turn over to the construction company.³⁷ The Iowa Falls line had no equipment, was not completed and passed through a thinly settled territory from which the traffic would, necessarily, remain small for years. While there is no direct evidence to show that fraud existed, the inference, from the reports of the House Committee and the minutes of the Board of Directors of the Dubuque and Sioux City, is to that effect.

Despite the apparent unprofitableness of the Iowa Falls and Sioux City lines the Illinois Central was forced to include them in the lease in order to obtain the profitable Dubuque and Sioux City. Since no financial responsibility beyond the risk of working the lines for more than thirty five per cent of the gross receipts and since control of these lines secured a large and profitable traffic for the Illinois lines the directors of the Illinois Central were justified in making the arrangement. It was a good business proposition despite the peculiar methods pursued in leasing the Iowa Falls to the Dubuque and Sioux City, (and it must not be inferred that the crooked practices indulged in by the promoters of the Iowa Falls and Sioux City company influenced the directors of the Illinois Central.)

3
 (Continued from page 87.) American Railroad Journal, March 20, 1858.
 4 34 Dubuque newspapers, 1865-1866, 1867.
 5 35 Annual Report, Illinois Central Railroad, 1867. Railroad
 6 36 Report of Credit Mobilier and Dubuque and Sioux City, House Reports.
 7 37 Official statement by solicitor of Dubuque and Sioux City, in Annual Report, 1887. Cites proceedings of board of directors.
 (continued on page 89)

Aside from the lease of the Dubuque and Sioux City the only important action taken by the directors of the company occurred in the celebrated Lake Front Case. ³⁸ With the development of passenger traffic taking place in the sixties the Michigan Central, Chicago, Burlington and Quincy, and the Illinois Central found their Chicago station inadequate and a new building ^{became necessary.} ~~was desirable.~~ A location on the lake front was especially fitted to the business of the three roads and, accordingly, they asked the legislature for the right to fill in certain

~~THE ILLINOIS CENTRAL AND THE LAKE FRONT DISPUTE~~ parts of the submerged land along the lake front. The legislature was finally induced to grant their request, and a bill giving the three companies the right to the submerged land was passed. Governor Palmer vetoed it in a vigorous message to the General Assembly ^{which body, however,} ~~passed~~ it over his veto. While the main features of the bill were not bad, there were several provisions which worked a gross injustice upon the city of Chicago and gave excessive rights to the company. The common council of Chicago refused to accept the provisions of the bill, public opinion was aroused by certain parts of the measure and by the way the legislature passed it over the governor's veto, and the legislature repealed the act. The case was carried to the courts and finally decided against the company. The act was commonly referred to ^{known} ~~referred to~~ as the Lake Front Steal, and ^{by its connection with the matter,} ~~the Illinois~~ Central incurred the ill will of the public, ^(on account of its connection with the matter.)

(Continued from page 88) As this monograph deals with the charter lines of the Illinois Central, and as the Dubuque and Sioux City was not leased until the close of the period under discussion, the above description is regarded as sufficient.

No mention is made of the construction company frauds or the crooked practices of the Iowa Falls and Sioux City in the report of the Delegates appointed by the English and Dutch shareholders. As yet I have not been able to find sufficient material on this subject to give a thorough treatment. ~~and for personal reasons I~~ ~~do not desire to say more, until I do.~~ ^(continued)

The ^{physical} ~~technical~~ development of the Illinois Central railroad from 1856 to 1870 was much less important than its extensions through traffic agreements or leases. The year 1856 was the last year in which any new track was laid and construction work after that date was confined entirely to the improvement of existing roadbeds, buildings and bridges. As the tonnage increased it became necessary to build up certain parts of the property more than could be done through maintenance charges. In 1857 a large portion of the road was not ballasted, or else supplied with much less than was needed, many of the bridges were built of wood and could not stand the wear and tear of heavy traffic, and a number of the buildings, likewise, were of a temporary character. There were minor improvements of the property to be made and some of these could not be charged to maintenance. Thus, considerable expenditures were necessary to bring the property up to ^{good} ~~a~~ working standard. None of these changes were of immediate necessity and the work proceeded slowly or rapidly according to the surplus money that was available. ^{The increased traffic demanded} At the same time large expenditures ^{were made} ~~were made~~ for maintenance of way and the continuous work on the roadbed brought it into ^{first class} ~~better~~ shape. As a result, of these large expenditures (from both ^{were made} capital and ^{from income, and} ~~operating accounts~~) the condition of the property in 1870 was much better than in 1857. However, there were no radical changes. Only a few miles of steel rails were in use and the weight of rail remained the same. The entire line, except from Kensington to Chicago, was single tracked, and bridges, culverts, roadbed, sidings, ballast, buildings, and terminals were still in accordance with the general standards adopted in 1851.³⁹

³⁹ Annual Reports, Illinois Central, 1855 to 1870; especially annual reports of Maintenance of Way Department; cf. Chapter vi; ~~page 186~~

on the other hand

The development of the equipment was ~~not~~ much greater than the improvement of roads and buildings. Forty per cent of all the money charged to capital from 1857 to 1870 was expended on new equipment, and the amount of rolling stock was over twice as great in the latter year as in the former.¹ There was also a marked improvement in certain kinds of equipment, especially in the passenger service. Sleepers were

LARGE INCREASE IN
THE AMOUNT OF ROLL-
ING STOCK AND
MARKED IMPROVEMENT
IN CERTAIN LINES

introduced in the first part of the seventh decade and by 1870 they were in common use on all night trains on the system. Air brakes, auto-

matic couplers, vestibules, improved seats, heavier cars and better riding qualities, steel springs, more expensive furnishings, these were the important advances made during the period. Many of these improvements would have been classed as curiosities a generation later, but at the time they were considered of great importance and so they were. The greatest change in locomotives was the substitution of coal for wood, the use of iron or steel boiler tubes, somewhat heavier engines, and the development of distinct freight and passenger types. The general character and size of freight cars remained about the same, although a few cars capable of carrying twenty tons were in use and the old four wheel cars had been sent to the scrap heap.⁴ In spite of these improvements it cannot be said that the rolling stock of 1870 did any better service than the equipment of fifteen years earlier. The cost of locomotive operation per mile was considerably greater in the latter year, although the number of tons per train had decreased. Fewer cars were used in proportion to the tonnage than earlier, but this was due to better methods of operation, not to improved equipment.

Red: 446

¹⁴⁰ Annual Report, Illinois Central, 1857 to 1870; Pinewalt, Development of the Railway System of the United States, various chapters; American Railway Journal, technical articles and advertisements, 1857- to 1870.

The first part of the book is devoted to a general
introduction of the subject. The author discusses the
importance of the study of the history of the
people of the world, and the value of the
knowledge which it affords. He then proceeds to
a detailed account of the various nations and
peoples which have inhabited the world, from
the earliest times to the present day. The
author's treatment is comprehensive, and he
deals with the most important events and
characters of each nation. The book is written
in a clear and concise style, and is
easily accessible to the general reader. It is
a valuable work, and one which should be
read by all who are interested in the
history of the world.

THE HISTORY OF THE WORLD
FROM THE EARLIEST TIMES TO THE PRESENT DAY
BY J. H. MURPHY
LONDON: J. H. MURPHY, 1850

Improvements in operating methods, as improvements in equipment and permanent way, were not of great importance in the period under discussion. Longer experience in the handling of trains and the introduction of a few new methods resulted in advancement along certain lines

OPERATING METHODS
DO NOT OVERCOME
INCREASED COST OF
FUEL, LABOR AND
OTHER EXPENSES

but the improvement did not overcome the increased price of labor and fuel which occurred during the Civil War period. Moreover, the railroad had so

much traffic to handle from 1861 to 1870 that it was unable to adopt improved methods and the cost per ton increased rather than decreased.

The spasmodic and seasonal movement of much of the traffic also added greatly to the cost of handling freight. On the whole, though, it seems ^{that} the cost of handling freight per unit was quite a little greater in 1870 than fourteen years earlier, and this was due, to a considerable extent, to the lack of improvement in operating methods.

The conditions which confronted the management of the Illinois Central from 1857 to 1870 were peculiar. Panics, crop failures, and the Civil War prevented the natural development of the system and forced it into policies not suited to its geographical location. Moreover, the

ILLINOIS CENTRAL MAN-
AGEMENT AMONG THE
MOST OF THE PECULIAR
CONDITIONS IN WHICH
IT IS PLACED.

officers of the company were handicapped by its foreign control and often adopted more conservative methods than would have been ^{followed} ~~been~~ under

a different system of ownership. As a result, the company could not pursue the aggressive policy adopted by some of its competitors and often lost traffic as a result. Moreover, many of the successes ^{more aggressive of} obtained from 1857 to 1870 were merely temporary, and although the best under the circumstances, they inflicted loss upon the company later on.

CHAPTER V.

CONSTRUCTION AND DEVELOPMENT FROM 1857 TO 1870--TRAFFIC

In 1851 Illinois was practically isolated from the remainder of the country. There was comparatively little trade with other portions of the nation, and intercourse even between local communities was of slight importance. Moreover, the central counties, comprising fully one half of the arable land of the state, were thinly settled and the people living there raised only such crops as were necessary for their own immediate wants. Even along the banks of the rivers, where there was the greatest opportunity for commerce, the industrial and agricultural conditions were more backward than in Ohio or western New York. The total yield of wheat, corn, and oats, according to the seventh census, was only seventy-seven million bushels, slightly over one-sixth the crop of 1879 and but little more than the amount raised in either Indiana, Ohio, or Pennsylvania, and of this amount, less than one tenth was shipped to markets outside the

Cf. Chapter I, pages, 5, 6, 7.

According to the seventh census the production of grain in Illinois was as follows:--corn 57,646,000 bu., wheat 9,414,000 bu., oats 10,087,000 bu., total 77,147,000 bu. The production of the other leading agricultural states in the same year was:--Indiana 64,833,000 bu., Ohio 61,327,000 bu., New York 57,531,000 bu., Pennsylvania 51,145,000 bu., Missouri 44,473,000 bu. In 1879 Illinois reported 325,000,000 bu. of corn, 51,110,000 bu. of wheat, and 63,184,000 bu. of oats, a total of 440,086,000 bu. Cf. pages infra.

state. ~~At the same time,~~ ⁴²⁴ Fully two-thirds of such shipments were sent south by way of the Mississippi River, while less than one-third went east via the great lakes. ~~In other words,~~ The lower Mississippi valley states, especially Louisiana, Mississippi and Alabama, were the ~~only~~ domestic market for the agricultural products of Illinois. The exports to Europe from the central ~~West~~ were also handled by way of New Orleans. Thus, the trade of Illinois, as well as that of the other upper Mississippi Valley states, was along north and south lines.

Consequently, from the traffic standpoint, the construction of the Illinois Central railroad involved peculiar problems. When Senator Douglas secured the land grant of 1850, it was given by Congress for the definite object of building a railroad from the ⁹ great ⁴ lakes and the upper Mississippi River to the gulf of Mexico, with Chicago, Dubuque and Mobile their respective termini. The Illinois Central was only a part of a larger project, and a similar grant of land was given to the Mobile and Ohio and other southern railroads to complete the line from Cairo to the gulf. ~~2~~ This all-rail route from the north to the south ~~THE ILLINOIS CENTRAL RAILROAD, A NORTH AND SOUTH TRADE ROUTE~~ was intended to supplement the Mississippi river and to provide an economical trade route which would retain the commerce of the Mississippi valley in the channels existing at that time. In 1850, western commerce followed north and south, not east and west lines. Historically, New Orleans and the other gulf ports had always been the outlet for western exports; the Mississippi River, with its network of branches reaching to all parts

¹ Cf. Chapter I, pp. 9, 10. Report of the Committee of English and Dutch Stockholders, 1877.

² Cf. Chapter II, ~~pages 21 to 29~~. Section 7 of the Act of September 20, 1850, states: "That in order to aid in the continuation of said Central Railroad from the mouth of the Ohio river to the city of Mobile, all the rights, privileges, and liabilities shall be conferred on the states of Alabama and Mississippi."

Cf. Appendix, pp. 257, 258.

of the central West, was the natural, ~~as well as~~ the cheapest means of inland transportation for that territory; and the southern slave states, not the eastern industrial states, were the principal consumers of the grain, meat and raw materials of Ohio, Indiana, Illinois, Missouri and Iowa. Therefore, the Illinois Central, unlike the other great railway systems of the Northwest, was built in the direction in which commerce was moving in the Fifties. Its greatest prosperity could be achieved only when the great bulk of the agricultural products along its line were sent south to a gulf port, not east to New York, Philadelphia, or Baltimore.⁴⁴

The importance of this north and south railroad was clearly understood by the promoters, and they built the road on the most direct line from Chicago and Dubuque to Cairo. The latter city, not Chicago, was expected to be the main terminus of the system, although not necessarily the larger city.⁵² When finished, the Illinois Central formed a great Y, with the eastern branch beginning at Chicago, the western branch at Dubuque, and the two combining at Centralia into the main stem terminating at Cairo; but without a direct connection between the two northern termini. So far as the company was concerned ^{the} ~~this~~ location of the line meant that the only profitable route for the grain of central Illinois, especially that portion along the main line from Dixon to Vandalia, was south to Cairo.

⁴⁴ Report of the delegates appointed by the English and Dutch shareholders, 1877; Annual Reports, Illinois Central Railroad, reports of the President and Directors, 1861-~~to~~ 1875, inclusive.
⁵² Ever since the establishment of Cairo the capitalists interested in the promotion of the city have had extremely sanguine ideas as to the future importance of the place. When the Illinois Central was incorporated Chicago had a population of only thirty thousand, and frequent prophecies were made that Cairo would soon be the metropolis of the state. Sober statements were made that the city would have a population of half a million before the end of the end of the century.

Otherwise, the road would get only a short haul to some junction point. From Cairo, it was thought, the Mobile and Ohio, the Mississippi River, and the New Orleans, Jackson and Great Northern, and Mississippi Central railroads, with connections, would form the southern part of a through route from the great lakes and the upper Mississippi to Mobile and New Orleans.

However, in the sixth and seventh decades of the 19th century, the old trade routes between the west and the other portions of the United States were radically altered. The development of steam navigation on the great lakes, the construction of a vast network of railroads, the industrial expansion of western Europe and of the North Atlantic seaboard, and the Civil War, with the resulting prostration of the South, resulted in a readjustment of the commerce between different sections of the country. Trade was forced out of the natural paths it had followed prior to the war and was established on artificial lines. The commerce of the West and South was almost destroyed and trade was carried on along lines of latitude, not of longitude.

CHANGED
ECONOMIC
CONDI-
TIONS IN
1850-70

omit to top of p. 105

Reports of Robert Rantoul and David Neal in Documents Relating to the Organization of the Illinois Central Railroad; Annual Reports, Illinois Central Railroad, 1861 to 1874, inclusive. The influence of the Civil War in changing the routes by which western produce were sent to market can hardly be overestimated. As stated in the text, the commerce of the upper Mississippi Valley was almost entirely with the southern states. In the publication of the time, it is taken for granted that the Mississippi river is the natural outlet of this region. At the present time we are so accustomed to having western produce sent east by way of the great lakes that the southern route is the unnatural one. Looking at the matter purely from the standpoint of natural advantages the southern route is by all odds the most advantageous one. As shown by the correspondence between Freese and Douglas, a part of which is given in the appendix, it was clearly the purpose of Freese and Douglas to make the Illinois Central a north and south line which would develop New Orleans or Mobile in preference to New York. Cf. pp. 237, 238, Appendix.

Otherwise, the route would be only a short haul to some junction point. From Cairo, it is a short haul, the Mobile and Ohio, the basis is a river, and the Great Western, Jackson and Great Northern and basis is a river. The railroad, with connection, would form the southern part of a through route from the Great Lakes and the upper Mississippi to Mobile and New Orleans.

However, in the sixth and seventh decades of the 19th century, the old trade routes between the west and the eastern portions of the United States were radically altered. The development of steam navigation on the Great Lakes, the construction of a vast network of railroads, and industrial expansion of eastern Europe and of the North Atlantic seaboard, and the Civil War, with the resulting destruction of one coast, resulted in a readjustment of the commerce between different sections of the country. Trade was forced out of the natural paths it had followed prior to the war and was established on artificial lines. The commerce of the West and North was almost destroyed and trade was carried on along lines of latitude, not of longitude.

Reports of Robert L. Ransford and David L. Leland in connection with the organization of the Illinois Central Railroad; Annual Reports Illinois Central Railroad, 1862 to 1875, inclusive. The influence of the Civil War in changing the routes by which western products were sent to market can hardly be overestimated. As stated in the text, the commerce of the upper Mississippi valley was almost entirely with the southern states. In the publication of the time it is taken for granted that the Mississippi river is the natural outlet of this region. Above present time we are so accustomed to having western products sent east by way of the Great Lakes that the southern route is the unnatural one. Looking at the matter from the standpoint of natural advantages the southern route is by all odds the most advantageous one. As shown by the correspondence between these two routes, a route which is given in the present report, it was clearly the purpose of these and others to take the Illinois Central a north and south line which would develop New Orleans or Mobile in preference to New York. (Mr. Ransford, 1862, Report).

The most important influence which brought about this change was the industrial expansion of the North Atlantic states. Manufacturing, mining and transportation had developed since the embargo of 1807 and by 1850 this portion of the country had become largely industrial in character, while agriculture was relatively of much less importance

than a generation previous. Then, from 1850 on, the rapid settlement of the west, the prosperity of the southern states, abundance of capital, and various tariff measures, culminating in the highly protective Morrill act of 1861, combined to stimulate this movement. As early as the close of the fifth decade these states had reached practically their limit of agricultural production; in other words, the food supplies necessary for their rapidly growing population could no longer be furnished by the farms east of the Alleghany mountains. This condition was made more

- 1— Bogart, Economic History of the United States, chapters xi, xii.
- 2 The following tables show the growth of population and production of grain in the North Atlantic states:—

I
GROWTH OF POPULATION, NORTH ATLANTIC STATES.

	Industrial States ^a	Non-industrial states ^b	Total
1850	7,456,000	1,214,000	8,670,000
1860	9,435,000	1,269,000	10,704,000
1870	11,145,000	1,274,000	12,419,000
Increase	3,689,000	60,000	3,749,000
Per Cent Increase	49.5%	4.9%	43.3%
Increase U.S.			15,367,000
Per cent			65.9% ^c

a Connecticut, Delaware, Massachusetts, New Jersey, New York, Pennsylvania, Rhode Island.

b Maine, New Hampshire, Vermont.

c Taken from the United States Censuses, volumes on population, 1850, 1860, 1870. Cf. page 119, note

The first thing I noticed when I stepped
 out of the car was a warm, humid breeze.
 The air was thick with the scent of
 tropical flowers and the distant hum of
 city life. I took a deep breath, feeling
 the sun on my face and the soft
 texture of the sand beneath my feet.
 The beach was wide and empty, with
 gentle waves lapping at the shore.
 In the distance, a few palm trees
 swayed against a clear blue sky.
 I walked slowly, enjoying the
 solitude and the beauty of the
 scene. The sound of the waves was
 soothing, and the warmth of the sun
 was comforting. I felt a sense of
 peace and relaxation that I hadn't
 felt in a long time.

The sun was low in the sky, casting
 a golden glow over the entire scene.
 The waves were still, and the air was
 calm. I stood there, watching the
 sunset, feeling a sense of wonder and
 awe.

The following table shows the results of the
 experiment conducted on the 15th of May, 1925.

Time	Temperature	Humidity	Wind Speed	Wind Direction	Clouds	Visibility
8:00 AM	75°F	85%	5 mph	SE	10%	10 miles
9:00 AM	78°F	88%	6 mph	SE	15%	10 miles
10:00 AM	80°F	90%	7 mph	SE	20%	10 miles
11:00 AM	82°F	92%	8 mph	SE	25%	10 miles
12:00 PM	85°F	95%	9 mph	SE	30%	10 miles
1:00 PM	88°F	98%	10 mph	SE	35%	10 miles
2:00 PM	90°F	100%	11 mph	SE	40%	10 miles
3:00 PM	92°F	100%	12 mph	SE	45%	10 miles
4:00 PM	95°F	100%	13 mph	SE	50%	10 miles
5:00 PM	98°F	100%	14 mph	SE	55%	10 miles
6:00 PM	100°F	100%	15 mph	SE	60%	10 miles
7:00 PM	98°F	100%	14 mph	SE	55%	10 miles
8:00 PM	95°F	100%	13 mph	SE	50%	10 miles
9:00 PM	92°F	100%	12 mph	SE	45%	10 miles
10:00 PM	90°F	100%	11 mph	SE	40%	10 miles
11:00 PM	88°F	100%	10 mph	SE	35%	10 miles
12:00 AM	85°F	100%	9 mph	SE	30%	10 miles

The results of the experiment show that the
 temperature and humidity increased steadily
 throughout the day, reaching a peak of 100°F
 and 100% humidity at 6:00 PM. The wind
 speed also increased, reaching a peak of 15
 mph at 6:00 PM. The wind direction remained
 constant at SE. The cloud cover increased
 steadily, reaching a peak of 60% at 6:00 PM.
 The visibility remained constant at 10 miles
 throughout the day.

prominent by the large immigration of the period and the ~~much~~ higher standards of living which meant larger per capita consumption of all articles. Thus, there was an enormous demand for food stuffs over and above that supplied by the agricultural population of those states, and even in 1870 considerably over one-third of the total grain used was purchased from the west,⁸ the amount received varying from seventy five to a hundred million bushels a year.⁹

⁸ Transportation Routes to the Seaboard, p. 14; Bogart, Economic History of the United States, chapters xi, xii.

(Add table
at bottom
of page 99
of notes)

II

GROWTH OF AGRICULTURE, NORTH ATLANTIC STATES.

(In bushels)	1850	1860	1870	Increase, 1850-1870
Wheat	31,660,000	25,477,000	36,033,000	4,367
Per Capita	3.66	2.38	2.92	-.74
Corn	59,571,000	61,374,000	68,563,000	8,992
Per Capita	6.90	5.70	5.50	-1.40
Oats	60,171,000	79,040,000	85,501,000	25,330
Per Capita	6.95	7.72	6.89	-.06
Total	151,408,000	165,891,000	190,097,000	38,68
Per Capita	17.40	15.50	15.30	-2.10
United States 1				
Wheat	100,485,000		287,745,000	187,74
Per Capita	4.33		7.46	3.13
Corn	377,531,000		838,792,000	461,261
Per Capita	22.10		26.68	4.58
Oats	146,584,000		282,107,000	135,523
Per Capita	6.32		7.32	1.00
Total	624,600,000		1,408,644,000	784,044
Per Capita	-----		-----	-----

INCREASE -1850 to 1870

	North Atlantic States	United States
Wheat	4,367,000	187,745,000
Per Cent	13.80%	187.0%
Corn	8,992,000	461,261,000
Per Cent	15.1%	122.0%

(Continued on page 99)

ly increasing

A similar demand for food-stuffs occurred in Great Britain, Holland, and other countries of western Europe. English and Continental industries grew very rapidly during the middle of the 19th century and this movement was necessarily accompanied by a steady growth in population. During the first half of the century the English corn laws, with their restrictions on foreign purchases of foodstuffs, prevented a large importation of grain, but in 1846 the laws were repealed, and the

In 1841 the population of the United Kingdom was 26,730,000; in 1871 this was 31,484,000, or an increase of 4,754,000 in the thirty years. During the same time the agricultural population actually decreased. Gibbins, Industry in England, page 446; Levi, History of British Commerce, page 297; Seignobos, Political History of Europe since 1814, page 59.

0-0
(Continued from page 98)

III

INCREASE IN AGRICULTURAL PRODUCTION OF THE NORTH ATLANTIC STATES AS COMPARED WITH POPULATION.

From 1850 to 1870 the population increased by 3,749,000. If the consumption of the old population had remained the same the per capita supply of corn, oats and wheat for the increase would have been:--Corn--2.4 bushels per capita; wheat 1.59 bushels per capita; oats 6.75 bushels per capita.

IV.

APPROXIMATE DEFICIT IN SUPPLY OF WHEAT-NORTH ATLANTIC STATES a

	1850	1860	1870
Consumption	30,345,000 bu.	48,168,000 bu.	68,255,000 bu.
Production	31,660,000 "	25,477,000 "	36,033,000 "
Deficit	1,315,000 "	22,691,000 "	32,222,000 "

CONSUMPTION OF WESTERN GRAIN IN NORTH ATLANTIC STATES: 1872.

Shipments of western grain to New England States	41,132,225 bu.
Shipments of western grain to Atlantic States	63,744,897 "
Total shipments	104,877,122 "
U.S. Census, 1850, 1860, 1870, volumes on agriculture.	
Transportation Routes to the Seaboard, page 14.	
Surplus.	

add the table to the page 98

1. The first part of the report is devoted to a general survey of the situation in the country.

2. The second part of the report is devoted to a detailed description of the various branches of the economy.

3. The third part of the report is devoted to a summary of the results of the various investigations.

4. The fourth part of the report is devoted to a summary of the results of the various investigations.

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11. The eleventh part of the report is devoted to a summary of the results of the various investigations.

industrial population was free to purchase wheat and corn ^{from} ~~in the lowest~~ ~~abroad~~ markets. The American farmer, with his cheap prairie land, could produce grain much cheaper than his British competitor, and, as a result, the United States supplied not only the food necessary for the growth of population between 1840 and 1870, but also displaced tens of thousands of English agricultur-
 EUROPEAN DEMANDS FOR AGRICULTURAL PRODUCTS OF THE WEST
 alists who had been supplying their portion of the demand of 1840. In fact, less land was under cultivation ^{England} in 1870 than in 1845.¹ Naturally the imports of grain increased very materially, growing from two million imperial quarters in 1845 to fourteen million eight hundred and twenty thousand in 1870.² A similar, though much smaller, increase was taking place on the Continent.³ Various countries competed with the United States for this grain, but the bulk of the ~~English imports~~ ^{from supply} came from ~~this country~~ ^(the United States), and the rising European demand is seen in the increased exports ^{now} of American grain (including flour and meal) from thirteen million bushels in 1850 to over fifty million in 1870.⁴ 10

Levi

- 10 Levi, History of British Commerce, page 297; cf. 10th Census, Volume on Agriculture, Monograph on Cereal Production in the United States, especially page 468. ^{Tenth (1880)} 2c
 2 Ibid, especially Levi, page 297.

Ibid.

^{TP}
 10th Census (1880). In 1870 the United Kingdom consumed 14,100,000 quarters of wheat grown on English farms, and imported 7,950,000 quarters. The exports of the United States in 1870 were: wheat 36,584,000 bushels; flour, 3,463,000 bushels barrels; corn, 1,392,000 bushels; corn meal 187,000 barrels. This was the highest amount of exports since 1863. ^{9,000 bushels}

In 1850 to 1870 the continental demand for American grain or grain products was slight. During occasional years the exports were sufficient to attract attention, but usually ^{they were} not. Until the Civil War the West Indies were an important market for grain, especially grain sent south by way of the Mississippi River. The competitors of the United States for the English market were France, Russia, and Turkey.

The third market for Illinois products was the southern Mississippi valley, this portion of the country, unlike Europe and the North Atlantic states, did not increase its demands for agricultural products to the same extent that the other markets did. The cotton states, such as Mississippi, Alabama, Louisiana and Georgia, although well adapted ^{to} for the raising of corn and oats, found it more profitable, ~~or at~~

SOUTHERN COTTON
STATES NOT AN
IMPORTANT MARKET
FOR WESTERN GRAIN
AFTER THE WAR

~~least the planters believed it so,~~ to devote all their energies to the production of cotton and sugar, and to purchase ^{many} much of their food supplies

from the west. The high price of cotton prior to the Rebellion made it especially profitable to pursue this policy, and in the three or four years immediately preceding the war the demands for western corn and pork were especially heavy. However, the outbreak of the Civil War in 1861 destroyed this market during the four years of the struggle and diverted the grain traffic to the eastern seaboard. After 1865 attempts were made to revive this trade, but the enormous losses of the southern planters, the emancipation of the slaves, the lack of capital, ^{the} falling price of cotton, and ^{the} destruction or diversion of the transportation facilities made it difficult to develop the old commerce, while the changed economic conditions forced the planters to raise more of their ~~and it was not until after the war that the southern~~ food supplies than before. Therefore, in 1870, the southern market was largely a negligible quantity so far as shipments of ^{of} Illinois and ~~Iowa grain were concerned.~~ ^{was almost negligible} Moreover, the same influences which af-

--- especially

Olmsted, The Iyer South, A Journey Through the Back Country; Helper, The Impending Crisis, ~~of~~ Chapter I, pages 9, ~~and 10~~; Annual Report, Illinois Central Railroad, 1857-~~to~~ 1861; 8th Census (1860), Volume on Agriculture, Introduction; ~~Annual Reports, Illinois Central Railroad, 1861 to 1871~~; Report of the Delegates Appointed by the English and Dutch Shareholders, 1877; Bogart, Economic History of the United States, Chapter xx, page 273.

affected the domestic market ruined the exportation of western products via New Orleans. Prior to 1850 the southern port was as important a grain center as New York, but various causes, some of them originating before the war, reduced the amount of grain exported to an insignificant figure, and in the fifteen years from 1856 to 1870 the total shipments of corn, flour, and wheat from New Orleans were less than fifteen million bushels, as against three hundred million bushels from New York city. ~~LE~~


The industrial development of the country and the growth of a non-agricultural population ^{were} ~~was~~ not confined to the eastern states. The Northwestern and upper Mississippi valley states grew very rapidly in population from 1850 to 1870, and this growth was especially noticeable in the towns and cities. Cleveland, Indianapolis, Toledo, Chicago, Milwaukee, Detroit, and St. Louis became large cities, while the general urban population grew much faster than the agricultural population. This large increase of an element which did not produce its own food supplies made necessary a correspondingly larger production of grain and meat by the agricultural districts. ~~11~~

~~12~~ The following quotation from the Report of the Delegates appointed by the English and Dutch Shareholders gives the reasons for the relative decline of New Orleans:-- "The first check given to the rise of New Orleans dates from the year 1848 when large vessels began to be constructed which could carry grain to better advantage. The bar at the mouth of the Mississippi closed the port of New Orleans to such large vessels and this caused the west to seek outlets for their surplus products at the eastern ports where lower freights were offered.

"This stimulated the construction of railroads from the Atlantic ports to Chicago and Buffalo and from that time dates the importance of these cities as grain markets, which constantly increased and soon surpassed New Orleans.

"This movement continued until 1860 when the secession war cut off New Orleans from all communication with the west and for several years closed the port completely....." The authority for the statement in the text is found in the U.S. Statistical Abstract. Cf. growth of these cities in the census reports of population, 1850, 1860, 1870.

Thus, the combined demands of Europe, ⁷the North Atlantic states, and ⁸the urban population of the central west, ~~accompanied by an in-~~
~~creasing per capita consumption of food stuffs~~, necessitated a large
 increase in the grain production of the country. ¹² This demand could be

¹² The following table~~s~~ illustrate the truth of this statement and
 show~~s~~ the concentration of grain production in the central western
 states. 

The different groups are as follows:-- a

- GROUP I Connecticut, Delaware, Massachusetts, New Jersey,
 New York, Rhode Island, Maine, New Hampshire, Ver-
 mont.
- GROUP II Ohio, Indiana.
- GROUP III Illinois, Iowa, Michigan, Missouri, Wisconsin.
- GROUP IV Kansas, Minnesota,
- GROUP V Alabama, Arkansas, Georgia, Kentucky, Louisiana,
 Mississippi, Tennessee.

VI.

INCREASE OF POPULATION IN THE UNITED STATES; 1850-70

	1850	1870	Increase	PER Cent
GROUP I	8,670,000	12,419,000	3,749,000	43%
" II	2,968,000	4,345,000	1,377,000	32%
" III	2,427,000	7,693,000	5,266,000	218%
" IV	6,000	803,000	797,000	
" V	4,993,000	6,796,000	1,803,000	36%
U.S.	23,191,000	38,558,000	15,367,000	65%

VII

INCREASE IN WHEAT PRODUCTION, 1850-1870.

GROUP I	31,660,000	36,033,000	4,367,000	25.6%
" II	20,701,000	55,629,000	34,928,000	173.3%
" III	23,136,000	115,749,000	92,613,000	402.0%
" IV	1,000	21,256,000	21,255,000	194.5%
" V	5,479,000	16,112,000	10,633,000	194.5%
U.S.	100,485,000	287,745,000	187,290,000	186.5%

The statistics in the table~~s~~ are obtained from the United States
 Census¹² volumes on Agriculture, 1850, 1870. For reasons why
 these specific groups are taken compare page

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31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

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1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

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not in only two ways; either a highly intensive system of cultivation must be adopted in such states as New York, Pennsylvania, Ohio, and Indiana, or else the uncultivated prairies of Michigan, Illinois, Wisconsin, Missouri and Iowa would have to be utilized. ~~This latter could~~

NECESSITY OF
CHEAP TRANS-
PORTATION AND
IMPROVED AGRI-
CULTURE

be accomplished only through greatly reduced cost of transportation, both from those states to the Atlantic seaboard, and inside the state boundaries. To

depend upon highly intensive farming was uneconomical at the time and the natural alternative was the ~~cultivation~~ ^{use} of the western lands, ~~as~~ ^{the means to accomplish this was the} ~~development~~ ^{development} of lake commerce and railroad construction from 1850 to 1870. ~~In this movement, the Illinois Central and the state of Illinois played a leading part, and the history of the company is very closely related to the development of the upper Mississippi valley.~~

The most important consideration affecting the Illinois Central and the agricultural counties dependent upon it, was the cost of transportation, both from the farms to Chicago or Cairo, and from those ~~central to markets in~~ ^{lower Mississippi valley is} ~~ties~~ to the Atlantic seaboard or the Gulf of Mexico. If this territory

IMPORTANCE OF
CHEAP TRANS-
PORTATION FROM
THE FARM TO
THE SEABOARD

and the railroad were to prosper it was necessary that the rates from the farm to the seaboard be less than before the construction of the railroad, but also that

they be low enough to allow Illinois grain to travel east or south in competition with grain from such states as New York, Pennsylvania, Ohio, Indiana, Kentucky and Tennessee, which were much nearer the ~~consumer~~

(Continued from page 103)

INCREASE IN PRODUCTION OF CORN, WHEAT AND OATS, 1850-1870.

	1850	1870	INCREASE	PER CENT
GROUP I	151,408,000	190,097,000	38,689,000	25.6
II	151,870,000	208,161,000	56,291,000	35.4
III	156,450,000	521,255,000	364,805,000	232.7
IV	47,000	57,799,000	57,752,000	
V	376,069,000	304,762,000	61,307,000	16.3
U.S.	624,600,000	1,408,044,000	784,044,000	125.4

~~Decrease.~~

consumer. During the period under discussion, there were two competitive trade routes from Illinois to the domestic and foreign market; (1) the east and west line from Chicago to the Atlantic seaboard and (2) the north and south line from Cairo or St. Louis to the Gulf of Mexico. The territory tributary to the Illinois Central was almost equally distant from the western termini of these routes, and thus the rates from Chicago to New York, as compared with those from Cairo or St. Louis to New Orleans, decided which way grain would move.

Of these two routes, the one from Chicago east gained the most from improvements in transportation facilities taking place between 1850 and 1870. The water route, via the Great Lakes, the Erie canal, and the Hudson River, had provided reasonably cheap rates for through traffic ever since 1825, but in the decades before and after the Civil War, improvements were made which reduced the charges to a basis much lower than what existed in the thirties and forties. Larger and faster lake vessels were put in service, steam generally supplanted sails, and various economies of operation were made, the result of which greatly decreased the actual cost of making a trip from Chicago to Buffalo. In 1862 the deepening of the Erie Canal was finished and it became possible for canal boats of 250 tons to go from Buffalo to New York City, thus reducing the cost of carriage per ton. At the same time, the important harbors on the great lakes were dredged and the canals at Detroit, Sault Ste. Marie, and Niagara Falls were enlarged to accommodate large lake vessels. Moreover, the reduced cost of carriage was accompanied

1. Ringwalt, Development of Transportation Systems in the United States, page 135; 10th Census, volume on Agriculture, monograph on cereal production.
2. Ibid.
3. Ibid.

100

by even more important improvements in the handling of freight at Chicago, Buffalo, and other terminals, especially through the erection of elevators, the introduction of steam shovels, power conveyors and other labor saving machinery, and the better arrangement of the docks.¹ The natural result of these various devices to cheapen cost of transportation was a large expansion of the lake and canal trade, which, in turn, permitted further economies and allowed still more extensive reductions in rates. Thus, by 1870, the cost of sending a bushel of corn from Chicago to New York city fell as low as eleven cents.²⁻⁸

As important as the improvement of water transportation was the development of all-rail connections between Chicago and New York, Boston, Philadelphia, and Baltimore. In 1853 the Lake Shore and Michigan Southern was finished from Buffalo to Chicago; in 1854 Cornelius Vanderbilt consolidated several disjointed lines into the New York Central and Hudson River Railroad; in 1855 the Erie was built to Buffalo; in 1856 the Baltimore and Ohio^{and} Ohio and Mississippi route was completed; and in 1857 the Pennsylvania Central^{and} Pittsburg, Fort Wayne, and Chicago line was extended to Chicago.¹³⁻⁸ Other railroads were completed from Buffalo to the seaboard, so that in 1870 there were a number of strong, competitive lines from lake Michigan to the Atlantic.

At first the all-rail lines were unable to compete with the water route for the low grade freight, but between 1860 and 1870 further consolidations among the railroads, and extensive reductions in cost of operation enabled the New York Central and Pennsylvania to obtain a

(1880)

le

- ¹ Ringwalt, Transportation Systems in the United States, page 135;
² 10th Census, Volume on Agriculture, monograph on cereal production
³ United States Statistical Abstract, 1905, page 566.
⁸ Johnson, American Railway Transportation, pp. 25-27; Ringwalt, Transportation Systems in the United States, pp. 140-209.

large share of the east and west traffic. Fierce competition between the two rival lines caused temporary reductions in rates, but more permanent influences, such as consolidation of competing and connecting

REDUCED COST OF CARRIAGE ON RAILROADS lines; reduction of curves ^{and} grades, ~~etc.~~; technical improvements in motive power, equipment, and roadbed;

better methods of organization, accounting and operation, largely increased traffic, and the adoption of fast freight lines, enabled the railroads to carry most of the flour and much of the wheat and other grain in competition with the lake and canal boats. ¹⁴

The cost of transporting freight ^{by water} from the Northwest to the Gulf decreased somewhat in the period from 1850 to 1870, but ^{this did not benefit} ~~not in a way to~~ help the Illinois Central ~~nor to as great a degree as in the north.~~

Prior to the Civil War the federal government did very little to clear the Mississippi river of snags, sand bars, and other ^{ob-}structions, and,

SLIGHT DECREASE IN COST OF CARRIAGE BY MISSISSIPPI RIVER TO NEW ORLEANS as a result, the cost of handling freight was increased on account of the heavy insurance and general delay, and the introduction of large and economical

boats was prevented. This was especially true of the river below New Orleans and by 1850 the sand bars there had become so dangerous ¹⁵ that it was impossible for large ocean steamers to reach New Orleans. ⁸

Moreover, the river boats were not adapted to the carrying of grain in bulk and the cost of sacking wheat and corn, together with the loss from shrinkage during the long journey, even in 1870, was greater than the lake rates from Chicago to New York. ⁸ Had the Civil War not oc-

¹⁴ Johnson, American Railway Transportation, pp. 26, 27, 34-51; Ring-
¹⁵ wait, Transportation Systems in the United States, pp. 140-209;
 Ringwait, Transportation Systems in the United States, pp. 235-9;
 Report of the Delegates appointed by the English and Dutch share-
 holders, 1877; 10th Census, Volume on Agriculture, chapter on cer-
 eal production; 10th Census, Volume on Ag Transportation, monograph
 on Water Transportation; Annual Reports, Illinois Central Rail-
 road, 1855-1871; cf. page 102, note 1.

cured it is probable the worst of these evils would have been overcome, but the four years of war and the enormous destruction of property in the South prevented any improvement until after 1870.¹⁶ The results were especially noticeable in the export trade of New Orleans. On account of the bar at the mouth of the river preventing the entrance of large ocean vessels, the lack of return cargo from Europe to the southern states, the absence of proper terminal facilities and the ~~in-~~^{lack} ~~ability~~^{with which} of southern capital to meet the financial requirements of a large grain trade, the export of grain from that port was of little importance from 1850 until long after 1870.¹⁷⁸

The improvement of transportation facilities outside the states of Illinois and Iowa was accompanied by an even greater development inside their boundaries. From less than a hundred miles of railroad in Illinois and none in Iowa in 1850 the mileage in the two states increased to over five thousand miles in 1870. Trunk lines extended to all important places and through connections were provided. The Illinois IMPROVED LOCAL TRANSPORTATION IN ILLINOIS Central, in the form of a great Y, passed through the heart of both states. In the territory served by the company, including the Dubuque and Sioux City lines, the change was more marked than in any other part of the Northwest, and a vivid contrast could be drawn of conditions in 1850 as compared with those in 1870. Moreover, by means of traffic alliances, loans of cash, and materials, and other means, the Illinois Central had built up a system of semi-subsidiary roads that greatly extended its territory.¹⁸⁵

- ¹⁶ Report of ^{the} Delegates appointed by the English and Dutch Shareholder, 1877, cf. page 102 note 1; all references page 107, note 2.
¹⁷ Ibid.
¹⁸ Cf. chapter iv, pages ---

But the primary influence of the Illinois Central, as well as of other western roads, was in cheapening local transportation. Compared with our present standards, the railroads were poor and inefficient, nevertheless, the service was infinitely better than that on the old mud roads. Moreover, the influences which permitted rate reductions

IMPROVED SERVICE AND REDUCED COST OF TRANSPORTATION ON ILLINOIS CENTRAL RAILROAD; 1850-70

on the trunk lines also applied, though to a less extent, to the Illinois Central. As seen in chapter iv, ~~The~~ company introduced many improvements which reduced the cost of transporting freight, or at least

kept charges from rising with the general increase in prices during the period, while the enormous increase in tonnage distributed the fixed charges over a wider area and thus reduced the cost per ton. ¹⁹⁴ Naturally the cost of carrying freight from local stations to Chicago or Cairo was less in 1870 than in 1860, and only a fraction of the cost in 1850.

The extensive improvements in both rail and water transportation during the sixth and seventh decades of the 19th century had a direct influence on rates. Not only were there radical reductions of a temporary nature, caused by rate wars and tariff controversies, but reductions in cost of operation allowed permanent decreases hardly less important. As most of the grain traffic from 1850 to 1868 or 1869 was

1 For a fuller discussion of this subject compare chapter iv, page and chapter vi, pages 200 ff.

* 4 As shown in the references given in note 1, the cost of carrying freight on the Illinois Central did not decrease during the period under discussion. However, this was nominal rather than real. From 1862 on to about 1867 the inflation of the currency was sufficient to cause a considerable increase in nominal prices. In the closing years from 1867 to 1870 there were advances in cost of labor and certain supplies, which had a temporary influence in retaining railway rates at an artificially high point.

handled by the lake vessels the changes in lake rates were of primary importance. In the twelve years from 1858 to 1870 the average lake rates from Chicago to Buffalo decreased as follows:-

IMPORTANT REDUC- TION IN LAKE- CANAL RATES	CORN		WHEAT	
	1858	12.7¢ per bu.	15.50¢ per bu.	
	1870	6.0¢ " "	6.77¢ " "	20
	<u>DECREASE</u>	6.7¢ " "	8.73¢ " "	1 *

This reduction in lake rates was accompanied by similar reductions in freight charges on the Erie Canal and in 1870 the average rate per ton

Chicago Board of Trade Report, 1905, page 108.

The following tables show the reduction in freight charges by water from Chicago to Buffalo or New York.

VIII.

AVERAGE LAKE RATES, IN CENTS PER BUSHEL, ON CORN AND WHEAT FROM CHICAGO TO BUFFALO, N.Y. a

	CORN	WHEAT		CORN	WHEAT
1858	12.7	15.50	1864	8.9	9.52
1859	15.7	16.63	1865	8.64	8.93
1860	8.33	9.50	1866	10.75	13.77
1861	10.62	12.10	1867	5.11	8.0
1862	9.57	10.62	1868	6.04	8.02
1863	6.6	7.20	1869	5.84	6.51
			1870	5.9	6.77

IX

AVERAGE FREIGHTS, IN DOLLARS PER TON OF TWO THOUSAND POUNDS, ON DOWN TRAFFIC FROM BUFFALO TO ALBANY ON THE ERIE CANAL. b

CORN	WHEAT		CORN	WHEAT
1850	5.48		1861	4.26
1851	4.71		1862	4.42
1852	4.90		1863	4.17
1853	5.18		1864	5.32
1854	4.81		1865	4.72
1855	5.56		1867	4.44
1856	4.81		1868	4.44
1857	4.26		1869	4.72
1858	3.14		1870	3.06
1859	2.87			
1860	3.88			

(Continued page 112)

on down-freight was \$3.06 as against \$4.81 in 1854, or a reduction from 14.4¢ per bushel to 9.2¢²¹. The through rate on wheat from Chicago to New York city, including all tolls, declined from 28.36¢ per bushel in 1864 to 20.24¢ in 1871 (11.11¢ in 1870), with rates on corn from 1¢ to 3¢ lower per bushel.²² As the price of corn, oats and wheat were over fifty per cent higher in 1870 than in 1855, the decline in nominal rates meant a much greater decline in absolute charges. Thus, in 1858 one bushel of wheat at Chicago paid for the transportation of two bushels to New York, while in 1871 it provided for the carriage of 6.1 bushels.²³

1 Sess.,

21 Senate Reports, Transportation Routes to the Seaboard, 1st. Sess., 43rd. Cong., Appendix, page 168.
 22 Chicago Board of Trade Report, 1905, page 108.
 23 Aldrich Report, Vol. II, pages 7, 8, 60, 61.

X

THROUGH LAKE AND CANAL RATES FROM CHICAGO
 TO NEW YORK CITY, INCLUDING TOLLS, IN
 CENTS PER BUSHEL ON WHEAT. C

1864	28.36
1865	26.62
1866	19.61
1867	22.36
1868	22.79
1869	25.12
1870	11.11
1871	20.24

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PRICES AND COST OF TRANSPORTATION ON
 CORN AND WHEAT, 1858-70

	1858		1870	
Price of Wheat	61¢ per bu.		123¢ per bu.	
Transportation	30.2¢ " "		18¢ " "	
Price of Corn	49¢ " "		20¢ " "	
Transportation	28¢ " "		18¢ " "	

(Continued on page 113)

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Although at first unimportant, all-rail shipments of grain from the west to the east had become common by 1860 and by 1870 were fully as frequent as all-water shipments. The economies mentioned ^{above} ~~on pages~~ 106 and 107 permitted even more radical reductions in rates by railroads than took place on the lake. In 1850 the usual charge for grain traffic was 4¢ per ton per mile, or occasionally 3¢, irrespective of distance. ^{24 H} By 1870 the New York Central had reduced the general average rate per ton per mile to 1.9 cents, as against 2.5¢ in the earlier 1¢

²⁴ Transportation Routes to the Seaboard, page 61.

XII.

RATIO BETWEEN COST OF TRANSPORTATION AND PRICE OF ^e
WHEAT AT NEW YORK IN TERMS OF THE LATTER.

One bushel of wheat in 1858 paid for transportation of 2 bushels							
" " " " " 1871	"	"	"	"	"	6.1	"
" " " corn " 1858	"	"	"	"	"	1.75	"
" " " " " 1871	"	"	"	"	"	2.62	"

XIII

COST OF TRANSPORTING FREIGHT IN NEW YORK STATE. ^f
(IN CENTS PER TON PER MILE; 1856-70)

	NEW YORK CENTRAL	ERIE R.R.	CANAALS
1856	3.0	2.5	1.1
1857	3.1	2.5	0.8
1858	2.6	3.3	0.8
1859	2.1	2.1	0.7
1860	2.1	1.8	1.0
1861	2.0	1.7	1.1
1862	2.12	11.9	0.95
1863	2.4	2.1	0.9
1864	2.7	2.3	1.1
1865	3.3	2.7	1.1
1866	2.9	2.4	0.9
1867	2.5	2.0	.09
1868	2.6	1.9	0.9
1869	2.2	1.6	0.9
1870	1.9	1.4	0.8

- a Chicago Board of Trade Report, 1905, page 108
b Transportation Routes to the Seaboard, Appendix, page 168.
c United States Statistical Abstract(Henry Heinzer, Statistician
N.Y. Produce Exchange) 1905, page 566.
d-e Aldrich Report, page ; supra pages 111, 112
f Transportation Routes to the Seaboard, page 61.

The first of these is the fact that the
 number of cases of disease is not
 proportional to the number of persons
 exposed to the disease. This is
 because the disease is not
 equally infectious to all persons.
 The second is the fact that the
 disease is not equally fatal to all
 persons. This is because the
 disease is not equally severe in
 all persons.

The third is the fact that the
 disease is not equally contagious to all
 persons. This is because the
 disease is not equally infectious to all
 persons.

The fourth is the fact that the
 disease is not equally contagious to all
 persons. This is because the
 disease is not equally infectious to all
 persons.

Table showing the number of cases of disease in different parts of the country, and the number of persons exposed to the disease.

Part of Country	Number of Cases	Number of Persons Exposed
London	1000	1000000
Manchester	500	500000
Birmingham	300	300000
Edinburgh	200	200000
Glasgow	150	150000
Cardiff	100	100000
Belfast	50	50000
Other parts of the country	100	100000

The fifth is the fact that the
 disease is not equally contagious to all
 persons. This is because the
 disease is not equally infectious to all
 persons.

The sixth is the fact that the
 disease is not equally contagious to all
 persons. This is because the
 disease is not equally infectious to all
 persons.

Part of Country	Number of Cases	Number of Persons Exposed
London	1000	1000000
Manchester	500	500000
Birmingham	300	300000
Edinburgh	200	200000
Glasgow	150	150000
Cardiff	100	100000
Belfast	50	50000
Other parts of the country	100	100000

The seventh is the fact that the
 disease is not equally contagious to all
 persons. This is because the
 disease is not equally infectious to all
 persons.

year, 1856. On the Erie there was a further reduction from 2.5¢ in the earlier period to 1.4¢ in the later.²⁵ Moreover, during the summer months wheat was carried by rail from Chicago to New York for 27¢ a

ALL-RAIL &
RAIL-WATER
RATES FROM
CHICAGO TO
NEW YORK

bushel, or .93¢ per ton per mile.²⁶ At times, on account of rate wars, the tariff charges were reduced to an even lower figure per ton per mile. However, the average rates

for all-rail shipments from lake Michigan to the Atlantic seaboard declined from 36.19¢ per bushel in 1858 to 28¢ in 1870 for corn, and from 38.61¢ to 30¢ for wheat.²⁷ Moreover, the railroads from Buffalo to New York, especially the New York Central and Erie, made special efforts to handle grain between these points in competition with the Erie canal. As a result the average rail rate in 1871 was 18.3¢ for wheat and 17.0¢ for corn, as against 13.1¢ and 11.3¢ respectively on the canal. The average lake and rail rate, i.e. via lake to Buffalo and from there to New York by rail, was 22.2¢ per bushel on corn and 22.5¢ on wheat.²⁸

- ²⁵ Transportation Routes to the Seaboard, page 61.
²⁶ Ibid., page 52.
²⁷ Annual Report, Chicago Board of Trade, 1905, page 108.
²⁸ Ibid.

XIV.
AVERAGE ALL-RAIL AND LAKE-RAIL RATES, IN
CENTS PER BUSHEL, CHICAGO TO NEW YORK.

	ALL-RAIL		RAIL-WATER	
	CORN	WHEAT	CORN	WHEAT
1858	36.19	38.61		
1859	32.48	34.80		
1860	32.48	34.80		
1861	38.81	41.58		
1862	44.80	48.00		
1863	45.92	49.20		
1864	56.00	60.00		
1865	41.88	44.88		
1866	43.12	46.20		
1867	41.76	44.75		
1868	35.32	37.84		
1869	33.30	35.57	23.55	25.20
1870	28.00	30.00	22.20	22.50

(Chicago Board of Trade Report, 1905, page 108.)

Conditions existing in the east and west traffic did not hold good for shipments from Chicago south. The actual cost of handling freight from Cairo or St. Louis to New Orleans had not materially decreased from 1850 to 1870, and, as a result, rates between those points decline ^d much ~~more~~ ^{by} slower than the rates on east and west lines of transportation, so that in the latter year charges from central Illinois to the Gulf were only slightly less than the lake and canal tariffs to New York.

RATES FROM CENTRAL ILLINOIS TO NEW ORLEANS AND MOBILE THE SAME AS TO NEW YORK AND OTHER EASTERN PORTS

The barge rates from St. Louis were exceedingly low, but the general introduction of this system of carriage did not take place much before 1870 and, consequently, exerted only a slight influence on rates

from 1850 to 1870. ²⁹ The steamboat charges were nearly twice those made by the barge lines, but quicker time and less danger to the freight compensated the shipper for the difference. ³⁰ Considering merely the tariff rates, there was a difference of about $1\frac{1}{2}\phi$ per hundred on four ^h class shipments and from 10 to 12ϕ per bushel on grain from central Illinois to market in favor of New Orleans. ³¹ However, service and other conditions reversed this advantage. (1) The lowest north and south

²⁹ Transportation Routes to the Seaboard, Vol. I, pages 24, 52; ibid., Appendix, pp. 19, 20, 96, 53, 167, 168; ibid., Vol. II, pp. 897-900.
³⁰ Ibid.
³¹ Ibid.

XV

COMPARATIVE RATES---ILLINOIS TO SEABOARD. --CORN

	ALL-WATER	ALL-RAIL	
1860			
Chicago to New York	23.8¢	34.80¢	Per bushel
Chicago to New Orleans	23.9¢	36.50¢	" "
Champaign to New York	24.63¢	42.8¢	
Champaign to New Orleans		28.50¢	

Rates Chicago to New York based on pages 110 ff. Rates from Chicago to New Orleans based on rate quoted in Chicago Times, February 17, 1858. Route from Champaign south via Illinois Central to Cairo and Mississippi river from there south.

rates were for shipment in bulk by barges and this service was not in general use before 1866. Moreover, most of the lines stopped at St. Louis, not Cairo, and the Illinois Central received no advantage in sending grain to St. Louis in preference to Chicago, as the rates from central Illinois to the two cities were practically the same. (2) Shipments of grain by steamboat from Cairo south had to be sacked and the cost of sacking averaged several cents per bushel. (3) On account of the longer route and the semi-tropical climate, loss from shrinkage via the north and south route was much greater than via the east and west one. This loss would run from ten to twenty per cent of the weight of corn shipments. (4) Terminal, storage, and transfer facilities were much poorer at New Orleans than at New York. (5) The local southern demand for grain was small, and Kentucky, Tennessee and Missouri were in a better position than Illinois to compete for the traffic.

XVI.

COMPARATIVE RATES ON CORN: ILLINOIS TO SEABOARD.

1870

	ALL-WATER	ALL-RAIL
Chicago to New York (1871)	20.24¢	30.00 per bu.
Chicago to New Orleans	21.00¢	33.00¢ " "
Champaign to New York	32.84¢	42.84¢ " "
Champaign to New Orleans (under) 20¢	(under) 30.00¢	" "
St. Louis to New Orleans (barge) 12-17¢		" "
St. Louis to New Orleans (steamer) 22.2¢		" "

XVII.

1858 TARIFF RATES--CHICAGO TO NEW ORLEANS

First class	\$1.05 per 100#	Flour	\$1.00 per bbl.
Second "	.625 " "	Pork	1.93 " "
Third	.78 " "	Beef	1.93 " "
Sugar, etc.	.625¢ " "		
Wheat, corn, etc.	40¢ per 100# to Cairo; 25¢ per sack to New Orleans.		
Rate quoted in Cairo Times, February 17, 1858.			

Moreover, through export traffic was practically prevented by the higher steamer rates from New Orleans to Liverpool than from New York to Liverpool. In 1870 there were no quotations for the transportation of corn via steamer from New Orleans to Liverpool and in only five months were there any quotations for shipment by sailing vessels. In 1872, the only year for which there is a good basis for comparison, the difference was as follows:--

(quotations in pence per bushel)

OCEAN RATES MUCH
HIGHER FROM NEW
ORLEANS TO LIVER-
POOL THAN FROM
NEW YORK

(CORN)	STEAM	SAIL
New York to Liverpool	7 1/6d	6 11/12d
New Orleans to Liverpool	11 1/4d	10 3/4d
Difference in favor of New York	4 d (8¢)	4 d (8¢)

This difference of nearly eight cents per bushel in favor of New York offset most of the advantages received by New Orleans from lower domestic rates. Higher insurance, higher elevator and wharfage charges, longer time en route, with increased interest on the shipment, eliminated the remaining advantages New Orleans possessed over New York and placed the two ports on an equality so far as transportation charges were concerned. ^{But even had equal rates} With equal rates, the disadvantages of the southern route were too great to permit any important export of grain by way of New Orleans or Mobile.³³

The second important item affecting the movement of grain from Illinois to the East was the local transportation charge, that is the rate from the local station to Chicago or Cairo. In chapter I it was shown that the cost of handling grain over Illinois roads was so high that territory more than ten to fifteen miles from railroad or river

³² 1 Transportation Routes to the Seaboard, Appendix, pages 20, and 54.
It should be noted that the comparison of rates is based on a single year and is liable to error, but it was the best that could be secured.

³³ 8 Ibid., cf. references on page 107 note 2.

transportation could not send its produce to outside markets, and that the Illinois Central railroad was necessary to remedy this trouble. On the macadamized turnpikes of the eastern states the cost of carrying grain by wagon was about ten cents per ton per mile, but over the Illinois roads this cost must have been increased fifty to one hundred

LOCAL RATES
ON ILLINOIS
CENTRAL

per cent.³⁴ With the completion of the railroad this

charge was reduced materially. Moreover, there was a slight reduction in rates from 1856 to 1870, primarily in bulky articles^s such as grain, lumber, coal, and salt. The higher class goods had practically the same rates in 1870 as in 1856, although some difference must be made for inflation of the currency. As early as 1856 a rate of 1.75¢ per ton per mile was made on coal³⁵ and in the next fourteen years this charge was reduced to less than 1¢³⁶. Grain from local stations was carried to Cairo in 1858 for 2.2¢ per ton per mile and for about 1.5¢ in 1870. On through grain shipments to New Orleans the Illinois Central received a rate of 1.3¢ per ton per mile in 1870.³⁷ A somewhat better basis of comparison is the average rate on different classes of traffic. The per ton per mile rates on local and through traffic in 1859 and 1870 were as follows:--

	1859	1870	
Local freight north	2.19¢	2.44¢	per ton per mile.
Local freight south	2.06¢	2.35¢	" " " "
Through " north	1.70¢	1.12¢	" " " "
" " south	1.86¢	1.55¢	" " " "
" " n.&s.	1.80¢	1.36¢	" " " "
All " n.& s.	2.14¢	2.31¢	" " " "

- ³⁴ Ringwalt, Transportation Systems in the United States.
³⁵ J.W. Foster, Mineral Resources of the Illinois Central, p. 10.
³⁶ Annual Report, Illinois Central Railroad, 1870.
³⁷ Cairo Times, February 17, 1858; cf. pages 115, 116, 117; also, Transportation Routes to the Seaboard, II, pp. 897-900.
³⁸ Annual Report, Illinois Central Railroad, 1859, and 1870. Cf. chapter vi, page 200 and chart.

Nearly all of the local traffic moving south consisted of lumber, coal, and a little grain; three fourths of the local traffic north was grain so that the rates on north and south local traffic give an approximate idea of the rates charged lumber, coal, and grain. However, the true standard by which local rates must be judged, is whether they permitted grain from central Illinois to be carried east or south, in competition with grain from other parts of the state, and from Missouri, Wisconsin, Michigan, and Indiana. Up to about 1868 the farmer along the Illinois Central competed on favorable terms with the farmers of the states farther east and south, but this was due to the high price of wheat and corn and the richness of the soil, rather than to favorable railway rates. ³⁹

Reduced local and through rates on agricultural products made it possible for farmers to take up the millions of acres of vacant land in the northwestern and upper Mississippi valley states and produce grain for eastern and European markets. As a result, the decades from 1850 to 1870 witnessed an unprecedented immigration into Illinois, Michigan, Wisconsin, Missouri, Minnesota, and Kansas, and by 1870 the population of this territory was nearly ⁴⁰ four times what it was in 1850. So far as the Illinois Central was concerned this immigration may be divided into three classes, according to the territory the immigrants settled in. (1)

IMMIGRATION INTO
CENTRAL WEST 1850
TO 1870 AND RELATION
TO THE ILLINOIS
CENTRAL

Wisconsin, Missouri, Minnesota, and Kansas, and by 1870 the population of this territory was nearly ⁴⁰ four times what it was in 1850. So far as the Illinois Central was concerned this immigration may be divided into three classes, according to the territory the immigrants settled in. (1)

³⁹ English (1860) ---
⁴⁰ 8th U.S. Census, Volume on Agriculture, Introduction; cf. Martin, The Granger Agitation.
U.S. Census (1850, and 1870).

South and North

IV. I

GROUP	SETTLEMENT OF THE CENTRAL WEST.			
	1850	1870	INCREASE	PER CENT
Illinois & Iowa	1,043,000	3,753,000	2,710,000	259
Mich., Wis. & Mo.	1,384,000	3,959,000	2,575,000	186
Minn. & Kansas	6,000	803,000		
Total	2,433,000	8,496,000	6,063,000	249

Those settling in Illinois and Iowa tributary to the railroad; (2) Those taking up land in parts of Illinois and Iowa in direct competition with the Illinois Central territory and in Wisconsin, Michigan and Missouri; (3) Those going to Minnesota and Kansas, where they did not compete actively with central Illinois until about 1870. The two latter groups are outside the field of this history, but it may be said that their growth was much slower than that of Illinois and Iowa directly tributary to the Illinois Central and subsidiary lines.

While this immigration went into every portion of the state, the central counties along the Illinois Central Railroad, and especially those between La Salle and Shelbyville counties, were the least settled in 1850 and, consequently, offered the greatest opportunity to farmers. In the twenty years from 1850 to 1870 ^{over} ~~at~~ of a total increase of population of 1,688,000, 981,292 occurred in the belt of counties near the "Central", and in the latter year slightly over one half of the inhabitants of the state lived in the forty four counties tributary to this railroad. ⁴¹ In 1850 the central counties were thinly settled, and what is now called the "corn belt" was almost entirely unoccupied government land, but by 1870 this portion of Illinois had been transformed into a well settled farming community. With the growth of population the area not under cultivation steadily declined, and by 1870 practically all the land surface of the state, especially in the central part, was either under crop or else used for meadow or woodland. ⁴² ₈ Early in the sixth decade

Seventh and Ninth

⁴¹ Census of (1850, and 1870).
⁴² Ibid. Compare tables showing relative growth of counties tributary to the Illinois Central and those not tributary, given on page 121. Also compare with table ~~IV~~, note, page 119, as to relative growth of this territory and the northwest as a whole.

the federal land was sold and the railroad grant, with the exception of less than three hundred thousand acres, was disposed of by 1870.⁴³

The rapid settlement of Illinois and Iowa was accompanied, it might almost be said, ^{was} caused, by important improvements in agriculture. Up to the middle of the 19th century the farmers of this country were using largely the same methods of cultivation as their grandfathers.

IMPROVEMENT Crops were planted, cultivated and gathered by hand,
IN ILLINOIS
AGRICULTURE which, naturally, resulted in high prices for agricultural products. But the increased demands for grain mentioned on pages 97 to 100, the lack of labor arising from the expansion of manufacturing, mining and commerce, the Civil War, and the settlement of the

⁴³
Annual Report, Illinois Central Railroad, 1870.

II

SETTLEMENT OF THE FORTY FOUR COUNTIES IN ILLINOIS TRIBUTARY TO THE ILLINOIS CENTRAL RAILROAD

	1850	per cent	1860	per cent	1870	per cent
GROUP I	115,113	12.4%	291,829	17.0%	495,253	19.5%
GROUP II	248,868	30.2	585,548	34.3	923,579	36.6
COOK CO.	43,385	4.2	144,954	8.4	349,966	13.8
TOTAL	292,253	34.4	730,502	42.7	1,273,545	50.4
STATE	851,000	100.0	1,711,000	100.0	2,539,000	100.0

GROUP I consists of the following agricultural counties in the central part of the state:--Bureau, Champaign, Coles, De Witt, Douglas, Ford, Iriquois, Cumberland, Wankakee, La Salle, Livingstone, Logan, McLean, Macon, Marshal, Moultrie, Putnam, Shelby, Woodford, Piatt.

GROUP II consists of the above counties and Alexander, Bond, Clay, Clinton, Effingham, Franklin, Fayette, Jackson, Johnson, Jefferson, Jo Daviess, Lee, Marion, Montgomery, Ogle, Perry, Pulaski, Stephenson, Union, Will, Williamson, Washington.

All of these counties are within fifteen miles of the Illinois Central Railroad and are tributary to it. This classification of counties is followed in all subsequent charts relating to growth of counties near the Illinois Central.

The following table shows the results of the survey conducted in the year 1900. The data is presented in a tabular form, with columns representing different categories and rows representing specific data points. The table is organized into two main sections, each with its own set of headings. The first section deals with the general statistics of the survey, while the second section provides a more detailed breakdown of the data by region or district. The figures are presented in a clear and concise manner, allowing for easy comparison and analysis. The table is a valuable tool for understanding the results of the survey and for identifying trends and patterns in the data.

Summary of Results

Category	Sub-category	Value	Percentage	Total	Average
1	1.1	100	100%	100	100
2	2.1	200	200%	200	200
3	3.1	300	300%	300	300
4	4.1	400	400%	400	400
5	5.1	500	500%	500	500
6	6.1	600	600%	600	600
7	7.1	700	700%	700	700
8	8.1	800	800%	800	800
9	9.1	900	900%	900	900
10	10.1	1000	1000%	1000	1000

The following table shows the results of the survey conducted in the year 1900. The data is presented in a tabular form, with columns representing different categories and rows representing specific data points. The table is organized into two main sections, each with its own set of headings. The first section deals with the general statistics of the survey, while the second section provides a more detailed breakdown of the data by region or district. The figures are presented in a clear and concise manner, allowing for easy comparison and analysis. The table is a valuable tool for understanding the results of the survey and for identifying trends and patterns in the data.

Rocky Mountain and Pacific Coast states, made necessary labor saving machinery for the farm. As a result agriculture was completely revolutionized. Improved plows and harrows, seeders, cultivators, binders, reapers, threshers, corn shellers and other implements were introduced and it became possible for one farmer with the aid of farm machinery to raise several times as much grain as under the old hand method, and, that too, with much less physical exertion. Naturally, this decreased the cost of raising a crop and prevented any considerable increase in the price of food stuffs. The influence on the Illinois Central and the territory tributary to it was almost beyond calculation. ~~Even in~~ ^{had} 1851 there was a dearth of labor and farm machinery not been generally adopted the enormous crops of 1860 to 1870 could not have been planted or gathered. This was especially true during the Civil War ^{when} ~~and~~ over a third of the able bodied workers of the state were in the army. The introduction of machinery on the farm, especially the reaper and thresher made possible the large shipments of grain during that period which otherwise would not have taken place.¹

Prior to 1870 the Illinois Central railroad was the vital factor in developing central and southern Illinois, and this influence commenced as soon as the first piece of track was laid in May, 1852. Of course, the amount of traffic handled during the construction of the road was small and consisted largely of local freight, principally immigrant's goods, but even in this way it was of great assistance in settling the interior counties. At first, work trains, and then regular freight and passenger trains were operated.

¹ 44 Bogart, Economic History of the United States, pages 228-303; Quaintance, The Influence of farm machinery on crop production and labor; Fite, The Agricultural Development of the West during the Civil War, Quart. of Econ., XL, 259-278. Cf. Transactions of Illinois State Agricultural Society during this period.

on sections of track as soon as completed, and in this way it became much easier for settlers to reach either the government or railroad lands which were on the market. However, the real traffic history of the company does not commence until 1855, at which time all the railroad, with the exception of seventy-seven miles from Mattoon to Centralia, was in use. ⁴⁵ ~~1*~~

⁴⁵ Annual Report, Illinois Central, 1855 to 1857. The net earnings to January 1st, 1855, amounted to \$276,540.59. Estimates of the gross earnings are given, but they are so incorrect, it is not worthwhile to repeat them. However, the approximate gross earnings are supposed to have been about three quarters of a million dollars in the period prior to the first annual report in 1855.

In this connection it is interesting to study the estimates of traffic made by the promoters of the company. Mr. David Neal, the Vice-President, made a report on this subject to the President and Board of directors. As this report throws considerable light upon the later traffic policy of the road a full summary of it is given below:--

Speaking of the coal from the Cairo and Danville fields he says:-- "It is not probable that any considerable quantities will be exported from Cairo because the ~~hau~~ coal from the Ohio being contiguous to its banks can be delivered on shipboard for less money. It will, however, be wanted by every steamboat that touches Cairo. 1500 steamboats times 50 tons is 75,000 tons. From the mines near Danville Chicago and all of the towns on lake Michigan would receive their supply of coal to more advantage than from any other source. The average transportation will be over 75 miles and the lowest rate would be \$1.50 per ton, which would mean \$225,000. The central counties of the state have no lumber, while those having coal have lumber. The cars, therefore, carrying, coal, as well as those carrying produce to Chicago will find employment on their return trips in the transportation of lumber. The gross income from this cannot be stated definitely, but will be at least \$300,000.

2nd. The transportation of Indian corn and other grains will be the important business of this road. Their production will, in time be limited by the capacity of the road to carry it off. (He estimates 60,000 families as tributary to the Illinois Central on 20,000 square miles. Estimates 666 2/3 bushels of corn per family to be exported, equal to 33,333,333 bushels of indian corn, equal to 1,000,000 tons) The average distance which it would have to be transported to the market could not be less than 100 miles and the price would be low at 5¢ per ton per mile. This would give \$4,000,000. (To keep within bounds we will suppose that, exclusive of the lumber by the coal and through trains, only one eighth of the outward tonnage is returned in supplies. This would give the road at the enhanced rate which such goods would bear (say 4¢ per ton per mile) \$5 per ton, or \$625,000.

(Continued on page 124)

The Illinois Central was built with the primary object of developing the agricultural resources of the state, and until the eighties *traffic in the product of its agricultural business* overshadowed *everything else*. Thus, in 1860, approximately fifty per cent of the entire traffic of the road originated on the neighboring farms, and eleven per cent more was lumber,

(Continued from page 123)

(4) Local Traffic. The local travel of this road will be an item of some importance. The people must be considerably scattered and if they travel at all they will use the railroad. Now, if each family overages 5 journeys of 60 miles each, or 300 miles, per annum for the whole household it will cause the road to carry one passenger 18,000,000 miles, which, at 3¢ per mile, is \$540,000.

(4) Through Travel. There is a great deal of travel from the south and west that moves regularly northerly and easterly in early spring and southerly and westwardly in autumn impelled by business or pleasure or both. Routes (a) The southern line of railroads and steamboats and stages from Virginia, the Carolinas, Georgia and Alabama.

(b) The Baltimore and Ohio Railroad intended to be constructed to Wheeling on the Ohio river. (c) The Pennsylvania Railroad and the Ohio Central from Philadelphia to Pittsburg. Thence by one line to lake Erie and by another through Columbus to Vincennes and St. Louis. (d) The Erie Railroad to Dunkirk, thence by the Lake & Shore roads to Toledo and thence by southern Michigan to Chicago. (e) Hudson River Railroad, connecting the Albany and Buffalo road and permitting terminating at Buffalo or Niagara Falls, and thence by the Great Western road through Canada to Detroit and thence by Michigan Central to the junction with the Illinois Central at or near Chicago. Now all of these routes, except the two first, although to a degree competing among themselves, will discharge their southwesterly freight and passengers upon the Illinois Central, which will, in turn, benefit them by affording the cheapest and best line from the Atlantic to New Orleans. When the M. & O., I.C., Great Western and Hudson River roads are completed the distance from New York to Mobile will be as follows:--

New York to Albany	144 miles	5 hours
Albany to Niagara	300 "	11 "
Niagara to Detroit /City	229 "	10 "
Detroit to Michigan Central	227 "	10 "
Michigan City to Cairo	400 "	16 "
Cairo to Mobile	500 "	20 "
Total	1800 "	72 "

We may estimate the movement at 250 persons easterly to pass over 400 miles or road, equal 10,400,000 miles, which at 3¢ per mile will give \$312,000, and in this same class must be included the transportation of merchandise. As the road will be the shortest safest and quickest line between the west and the east it will be likely to secure almost all of the valuable goods imported of manufactured by the Atlantic states for the supply of the Misis-

(Continued on page 125)

The following is a list of the names of the persons who have been elected to the office of the President of the United States, and the names of the persons who have been elected to the office of the Vice President of the United States, for the year 1800.

The following is a list of the names of the persons who have been elected to the office of the President of the United States, and the names of the persons who have been elected to the office of the Vice President of the United States, for the year 1800.

The following is a list of the names of the persons who have been elected to the office of the President of the United States, and the names of the persons who have been elected to the office of the Vice President of the United States, for the year 1800.

making a total of over sixty per cent of agricultural or semi-agricultural character.⁴⁶ Moreover, With the exception of Chicago and a few of the larger towns such as Galena, La Salle, Decatur, and Bloomington, the prosperity of Illinois was dependent on the prosperity of the farms of the state. Agriculture, then, was the keynote of the traffic history of the company until long after 1870.

⁴⁶
The distribution of tonnage is given in the annual reports of the railroad from 1856 to 1870; also receipts and shipments from each station for most of this period.

(Continued from page 124)
Mississippi valley. (6) Transportation of mail.

150,000 tons of coal carried 75 miles each gives	225,000 dollars
150,000 " " lumber " 100 " " "	300,000 "
1,000,000 " " produce " 100 " " "	4,000,000 "
125,000 " " mdse. " (back)	625,000 "
60,000 passengers (local) 300 " " "	540,000 "
26,000 " (through) 400 " " "	372,000 "
20,000 tons through freight 400 " " "	200,000 "
Total	6,202,000 "
Mails, etc.	98,000 "
	6,300,000

The transportation of the above 258,000,000 tons of merchandise or individual passengers carried one mile at 1¢ per ton per mile, would cost \$2,580,000, leaving \$3,720,000 net
Less 7½ state tax

440,000
3,280,000 or 7½ on \$47,000,000.

The transportation of this business would require the following train service:--

1.	1 freight train per day	Dubuque to Centralia	260 miles.
2.	1 passenger " " "	" " "	260 "
3.	1 freight " halfway	" " "	130 "
4.	2 " " per day	Junction to Cairo	174 "
5.	5 " " " " "	" " Chicago	226 "
6.	1 coal " " "	Mines to Cairo	54 "
7.	1 " " " " "	Danville to Chicago	120 "
8.	1 passenger " " " "	Cairo to Chicago (accom.)	400 "
9.	1 " " " " "	" " " (express)	400 "

requiring 689,560 passenger train miles and 1,162,808 freight train miles a year, or a total of 1,852,368; for which 75 engines, 90 passenger cars, 960 freight cars, and 64 coal cars were considered necessary.

(Taken from Letter of David Neal to President Schuyler, given in full in Documents Relating to the organization of the Illinois Central Railroad, pp. 85 ff. This is an official estimate of the earnings. The reader is referred to page 164, chapter vi, for the influence of this estimate on financial matters, and to the remaining pages of chapter v for a comparison of the actual and estimated traffic of the road.

As Illinois was primarily an agricultural state the movement of its crops, especially corn and wheat, depended upon demands outside the state, in other words upon the needs of the industrial population of the East and South, ~~as discussed on pages 97 to 103.~~ But whether the farmer in McLean or Macon country would ship his grain at all----the vital problem for the railroad---was decided by the price of grain at Chicago. Unless the New York price, less the cost of transportation,

FLUCTUATION IN PRICE OF GRAIN AT CHICAGO FAVORABLE TO THE FARMER 1850-70 in other words the Chicago price, would yield a profit on a bushel of corn or wheat, the farmer would not ship it, at least he would not produce and ship it for any length of time. Fortunately for the Illinois Central, the price of all farm products was high from 1861 to 1870, and was excessively low in only one or two years before that period. These high prices were accompanied by large demands from other parts of the country, as mentioned above, especially in the period from 1861 to 1870, and, at times, the supply of grain was insufficient to meet all the necessary demands of the North Atlantic states and Europe. On account of the inflation of the currency the increase in currency prices was very great, but there was a fair advance in gold prices, while the expenses of the farmer for labor and supplies did not increase as rapidly as the receipts from his grain or cattle. Of the different grains corn had the greatest rise in price and wheat the least, but as the territory dependent on the Illinois Central was largely corn country this proved of advantage to both the farmer and the railroad. There was also a large increase in the price of cattle; again favoring the central counties of the state.

- 1 Fite, The Agricultural Development of the West During the Civil War, Q. J. J. of Econ., XL, 259-278. Cf. Mitchell, History of the Greenbacks.
 2 Aldrich Report, Vol. I, pp. 7, 8.
 3 Ibid., pp. 60, 61
 4 Ibid., page 26.

The general adoption of labor saving machinery, combined with high Chicago prices for grain and a large demand for food stuffs, had a very strong influence on the production of grain in the territory along the Illinois Central railroad. Vacant government and railroad land was occupied and the acreage under cultivation increased rapidly from census

period to census period. The growth in some of the interior counties was remarkable. Champaign county increased its area under cultivation from twenty

two thousand acres in 1850 to four hundred and nineteen thousand in 1870; Livingstone from thirteen thousand to three hundred and seventy seven thousand, and Iroquois from thirty ^{THOUSAND} to three hundred and twenty two thousand. ⁵¹ The twenty one typically agricultural counties had more than seven times as many acres under cultivation in 1870 as in 1850, as is shown in the following table:-

C. 9. 10 III TO

ACRES UNDER CULTIVATION, 1850 ^{TO} 1870.

	1850	<i>per cent</i>	1860	<i>per cent</i>	1870	<i>per cent</i>
GROUP I	744,000	14.8 ^x	2,902,000	22.2 ^x	5,337,000	27.6 ^x
GROUP II	1,590,000	31.6	5,101,000	38.3	8,839,000	43.2
COOK CO.	154,000	3.1	267,000	2.4	348,000	1.8
TOTAL	1,744,000	34.7 ^x	5,368,000	40.7	9,187,000	45.0
<i>C. 9. 10</i> STATE	5,039,000	100.0	13,096,000	100.0	19,329,000	100.0 ⁸²

Seventh, Eighth, and Ninth

⁵¹ Censuses (1850, 1860, 1870), Volumes on Agriculture. *Table*
⁵² Ibid., for the counties comprised in each group, see page 121; per cent refers to per cent of total acreage contained in each county or group of counties. Group II includes Group I.
 * (Omitted from page 126) In the six years from 1856 to 1861 prices varied greatly and on the whole were not so favorable to the farmer as during the Civil War. The lowest point was reached in the second year of the war, 1862, when corn dropped to as low as 22¢ a bushel and wheat to 55¢^a. At the same time, just before the gathering of the crop of 1859 a remarkably high level was reached, which compensated, to a certain extent, for the lower figures before and after.^b

a Aldrich Report, Vol. II, pages 7, 8, 60 and 61, viz. April 1862 for corn and July, 1861 for wheat.

b Ibid., 1859.

The larger area in farms was accompanied by a greater yield of farm products, especially corn, wheat and oats. It was also accompanied by a greater diversity of farming, and the total production of the three staples, consequently, did not increase as rapidly as the acreage did.⁵³ At the same time the growth of the grain crops was large enough to attract attention. This was especially true of the central agricultural counties. The following tables show the increased yield of the three staples, but the figures for 1869 (census of 1870) were unduly small, owing to droughts, and to obtain a correct estimate of the increase during the decade the total should be considered about twenty five per cent larger.⁵⁴

Cap. 430. ~~XXI.~~ IV

PRODUCTION OF CORN, 1850 TO 1870.

	1850		1860		1870	
GROUP I	9,985,000	17.7%	29,613,000	25.8%	39,265,000	30.2%
GROUP II	16,890,000	29.3	44,302,000	38.6	59,257,000	45.6
GROUP III	429,000	.7	877,000	.7	770,000	.5
TOTAL	17,319,000	30.0	45,179,000	39.3	60,827,000	46.1
STATE	57,646,000	100.0	115,174,000	100.0	129,921,000	100.0

Cap. 430. ~~XXII.~~ V

PRODUCTION OF WHEAT, 1850 TO 1870.

	1850		1860		1870	
GROUP I	949,000	10.1%	4,105,000	17.6%	4,043,000	13.8%
GROUP II	2,171,000	25.1	8,870,000	37.2	10,625,000	35.4
COOK CO.	238,000	2.7	299,000	1.3	149,000	.5
TOTAL	2,409,000	25.8	9,169,000	38.5	10,774,000	35.9
STATE	9,414,000	100.0	23,837,000	100.0	30,128,000	100.0

Seventh, Eighth, and Ninth

1850, 1860, 1870.

Introduction of Volumes on Agriculture, Seventh, eighth and ninth United States census, 1850, 1860, 1870.

Ibid., 1870.

Cook County.

Volumes on Agriculture, seventh, eighth and ninth census.

Seventh, Eighth, and Ninth

The increase in the production of wheat in the state between 1850 and 1870 amounted to 35.9 per cent, of corn 46 per cent, and of oats 50.5 per cent.

XIII. VI

Crop

To

PRODUCTION OF OATS IN ILLINOIS, 1850-1870.

	1850		1860		1870	
GROUP I	1,275,000	12.0%	2,530,000	15.4%	10,619,000	24.8%
GROUP II	3,174,000	30.2	5,865,000	38.8	20,421,000	47.7
COOK CO.	403,000	4.0	1,092,000	7.2	1,584,000	2.8
TOTAL	3,577,000	34.2	6,957,000	46.0%	22,005,000	50.5
STATE	10,087,000	100.0	15,220,000	100.0	42,780,000	100.0

These tables show not only a large increase in all crops, but also an especial emphasis, particularly in the corn belt, on the production of oats and corn instead of wheat. At the same time, the total amount of grain produced in the forty three counties along the Illinois Central (excluding Cook county) increased from 21,200,000 bushels in 1850 to 80,500,000 bushels in 1870, or 369%. The number of sheep, cattle and swine on the farms will be taken up later on in this chapter.

Having seen the growth of grain production in the territory tributary to the Illinois Central it is possible to ascertain what influence these large crops had upon the railroad. In the preceding pages it was shown that the Illinois Central was placed in a very disadvantageous position in 1856 to 1870 in regard to shipping grain south to New Orleans and that economic conditions diverted western grain to Chicago and the east and west trade route. Although not to its interests, the "Central" was forced to yield to outside forces and make Chicago, not Cairo, its principal terminus for the handling of grain. The phenomenal rise of the former city as a grain center is a familiar story, and in the period under discussion the Illinois Central did as much as any other road to build up the interests of this city. It accomplished this result despite its un-

favorable location. In studying the map of the Illinois Central one is impressed by its poor arrangement so far as shipments to Chicago are concerned. It is better situated than any other Illinois road for the handling of corn and oats from a large portion of the corn belt, but is in a weak position so far as wheat from the northern counties is concerned. To carry wheat from, say, La Salle county over its own rails it must send the grain south to Centralia ^{and} then north again to Chicago, or about three times as great a distance as ^{that of} ~~via~~ the Chicago, Rock Island and Pacific ^{Route.} The same condition existed in the handling of grain from many of the counties on the main line north of Vandalia. This was obviated by traffic and trackage agreements, but not in a manner profitable to the Central. Up to 1860, the Galena and Chicago Union line from Freeport to Chicago had an agreement with the Central by which the latter's business from points north and south of Freeport was sent to Chicago over the rails of the Galena road in the Central's cars. ⁵⁹ Later a similar agreement was made with the Chicago, Burlington and Quincy from Dixon, but on somewhat less favorable terms. However, on most of the grain originating north of the Illinois river the Illinois Central obtained only the short haul to Freeport or Dixon, while the other railroad received liberal returns for carrying the cars to Chicago. Relations with the Galena or Burlington lines were not always friendly, and from 1858 to 1870 another means of uniting the main line and the Chicago branch was obtained. The Illinois Central assisted in the construction of the Peoria and Oquaka, now the Toledo, Peoria and Western branch of the Pennsylvania system, and made a trackage agree-

(Continued from page 129) ^{Seventh, Eighth, and Ninth}
 Volumes on Agriculture, U.S. Census (1850, 1860, 1870).

Ibid.

Pages 177, Chapter IV

48 Cf. Chapter IV, page 84
 259 Annual Report, Illinois Central Railroad, 1855 to 1859.

ment with that company by which its trains could run from El Paso to Gilman over the latter's tracks.⁶⁰ By this connection the two arms of the system were united one hundred and sixty miles above Centralia and the company was in a position to get the long haul on shipments to Chicago.⁶¹

Other traffic agreements were made with roads intersecting the Central by which the latter got the haul to Chicago. Important among these alliances was one with the Great Western, now the Wabash, at Tolono and Decatur, the Ohio and Mississippi at Odin and Sandoval, the Alton and Terre Haute, now the St. Louis Division of the Big Four, at Pana and Mattoon, and the Mineral Point railroads.⁶² By far the most

TRAFFIC AGREEMENTS
WITH VARIOUS ROADS
AND LEASE OF DUB-
& SIOUX CITY LINES
IN IOWA

permanent alliance was the one with the Dubuque and Sioux City, which, as described above, was leased by the Illinois Central in 1867.⁶³ [As stated in chapter iv, the re-

lations between the two companies were always very close and soon after the Iowa line was built an arrangement was made by which all the grain originating on the latter's road would be turned over to the Central at Dubuque.⁶⁴ In 1865 and 1866 other railroads, especially the present Chicago, Milwaukee and St. Paul system, attempted to control the Dubuque and Sioux City and subsidiary lines, and, in self defense, the Illinois Central leased the Dubuque and Sioux City, Iowa Falls and Sioux City and Cedar Falls and Minnesota for twenty years, at 35% of the gross earnings for the first ten years and 36% for the next ten.⁶⁵ By this arrangement all grain originating on the

⁶⁰ Annual Report, Illinois Central, 1857 to 1860. ←

⁶¹ Ibid., 1855 to 1870.

⁶² Ibid., 1861 to 1866.

⁶³ Ibid., 1867.

⁶⁴ The Illinois Central had merely a trackage agreement with this company and in later years allowed other and rival railroads to control this company.

⁶⁵ See ~~Annual Report, Illinois Central, 1867 to 1870.~~

leased lines would be carried by the Illinois Central over the charter lines. Iowa, at this time, was a very important wheat growing district and most of the grain transferred at Dubuque was wheat. Naturally, this extension of the system had an important influence on the Illinois portion ~~of the system~~, and during the first few years of the lease control of the Dubuque and Sioux City was profitable to the Illinois Central.⁶²

During the time these various traffic and trackage agreements were being completed, the receipts of wheat, corn, and oats at Chicago over the tracks of the Illinois Central grew very rapidly. In 1855 only a part of the road was in operation and in 1856, 1857, and 1858 there were poor crops, while most of the land near the railroad had not yet been settled. As a result the receipts of grain at Chicago from this territory were small. In 1859, 1860, and 1861, and most of the remaining years of the decade crops were good and the shipments by the railroad increased to considerable proportions, ~~as is shown by the accompanying chart.~~ Had it not been for the exceedingly low prices prevailing during much of the period from 1857 to 1862 and the large shipments south to Cairo from 1860 to the close of the war, the movement would undoubtedly have been much greater. The largest amount of any one grain consisted of corn, which increased from 758,901 bushels in 1858 to 6,903,430 bushels in 1867 and 10,475,680 bushels in 1871.⁶³ Wheat shipments grew at a somewhat slower rate, ~~or~~ from 1,100,482 bushels in the earlier year to 5,244,540 bushels in the latter.⁶⁴ The amount of oats handled remained

⁶² Cf. Chapter vi, page 210, for statements as to net profits accruing to the Illinois Central from this lease.

⁶³ Annual Report, Illinois Central Railroad, 1858, ~~and 1870~~. Itemized figures are not given before 1858.

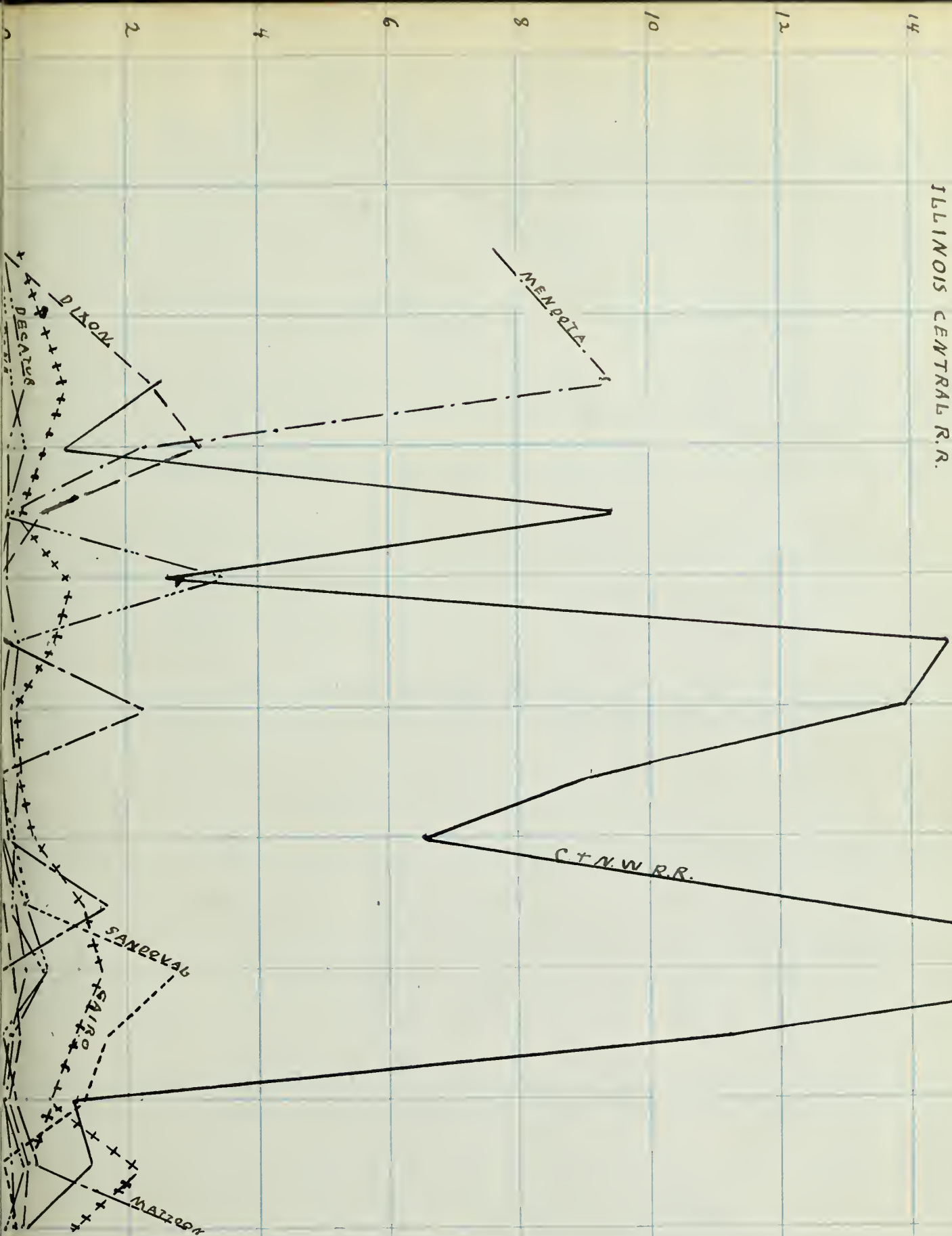
⁶⁴ Ibid. There is a slight difference between the figures given by the Chicago Board of Trade and the railroad due to different fiscal years.

FOOT
10000
APR 11 1880

WHEAT RECEIVED AT
VARIOUS STATIONS
ON THE
ILLINOIS CENTRAL R.R.

ET

Page 132



7
123

under half a million bushels a year up to 1865, when it jumped to 1,678,087 bushels and to 4,258,340 bushels in 1870. This rapid increase was brought about by the more general cultivation of this grain after 1860.⁶⁵

Compared with other railroads and the Illinois-Michigan canal the Illinois Central was always one of the leading grain lines, and during the Civil War period it handled more grain than any other road, with the possible exception of the Chicago, Burlington, and Quincy. In 1858 the Central was third in its receipts of ^{corn} grain at Chicago, being sur-

passed by the Chicago, Burlington, and Quincy and the Illinois ^{and} Michigan canal, with the Chicago and Northwestern only a few thousand bushels behind. In 1871

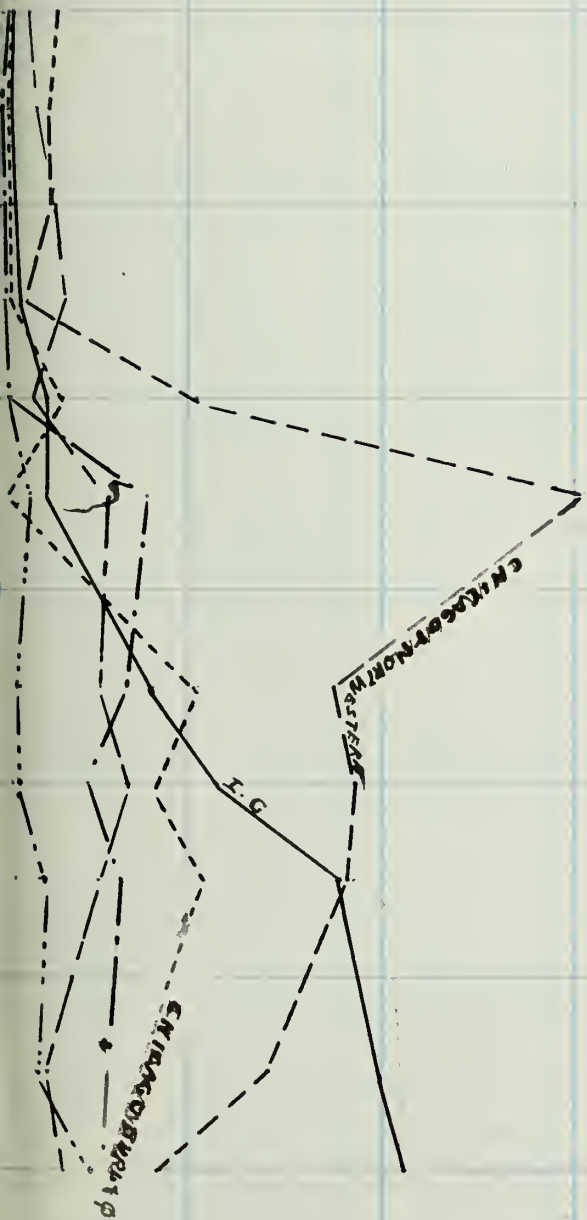
the Illinois Central handled more corn than any other line entering Chicago, and during the thirteen years increased its proportion of the total receipts from 8.1% to 24.8%.⁶⁶ In 1858 the Central was second in the receipts of wheat, which position it held in 1870, being led in both years by the Chicago and Northwestern. Its proportion of the total number of bushels reported, however, increased from 11.5% to 30.2%.⁶⁷ The growth in the handling of oats was even larger. From third place in 1858 the Illinois Central advanced to first place in 1870 and led its nearest competitor by two and a half million bushels. In the latter year it delivered 40.9% of all the oats received, as against only 4.9% in the former year.⁶⁸ Moreover, these figures are too low, in that they do not include grain handled by the Galena or Chicago, Burlington, and

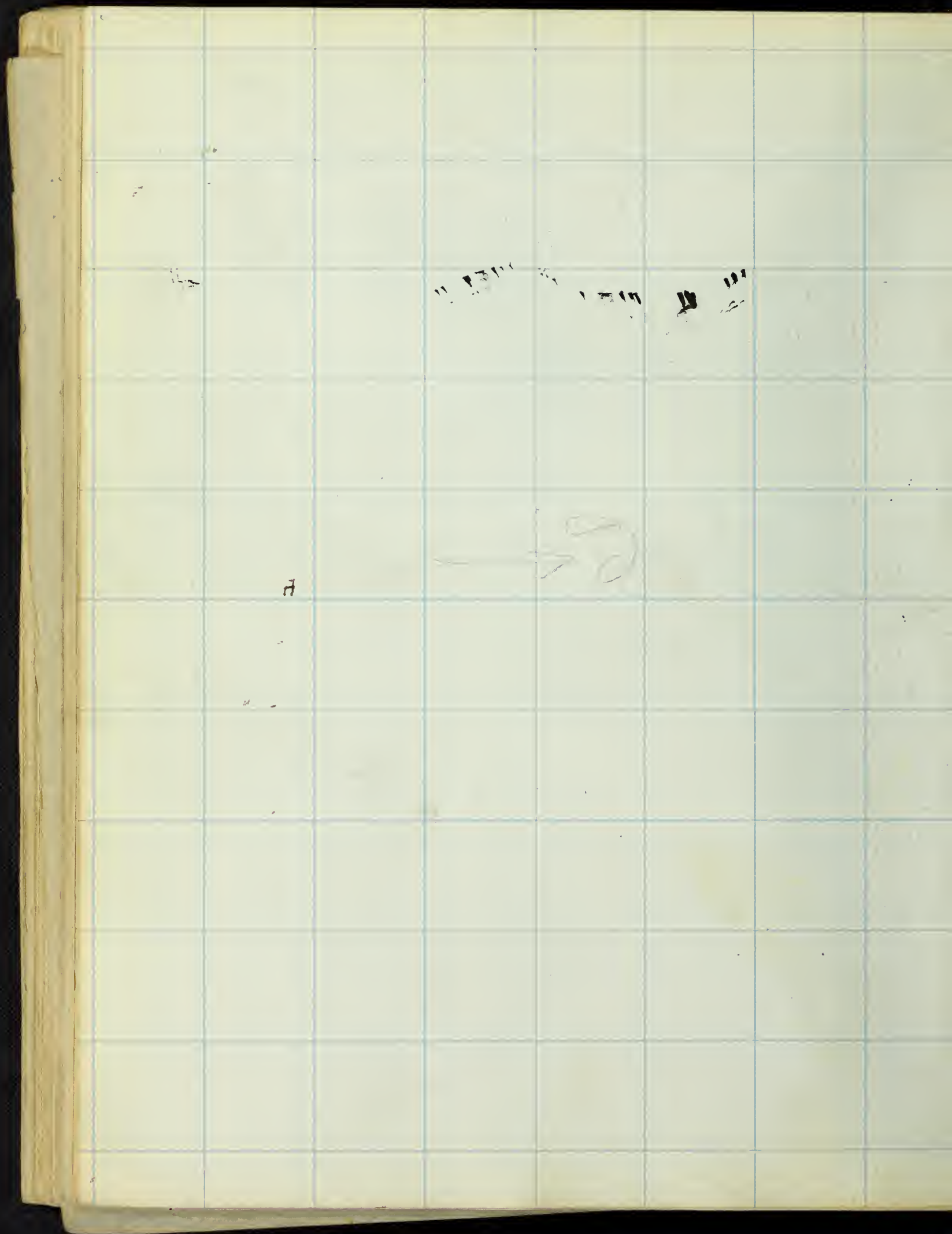
⁶⁵ Annual Report, Illinois Central Railroad, 1858-~~to~~ 1870. Cf. Introduction to Volume on Agriculture, 9th Census, under heading, oats.
⁶⁶ Annual Report, Chicago Board of Trade, 1858-~~to~~ 1870.
⁶⁷ Ibid.
⁶⁸ Ibid.

From 1867 to 1870 there is a discrepancy in the reports of the Illinois Central, and the figures given by the company cannot be given for the period.

ULIOUS
Q P
MARS

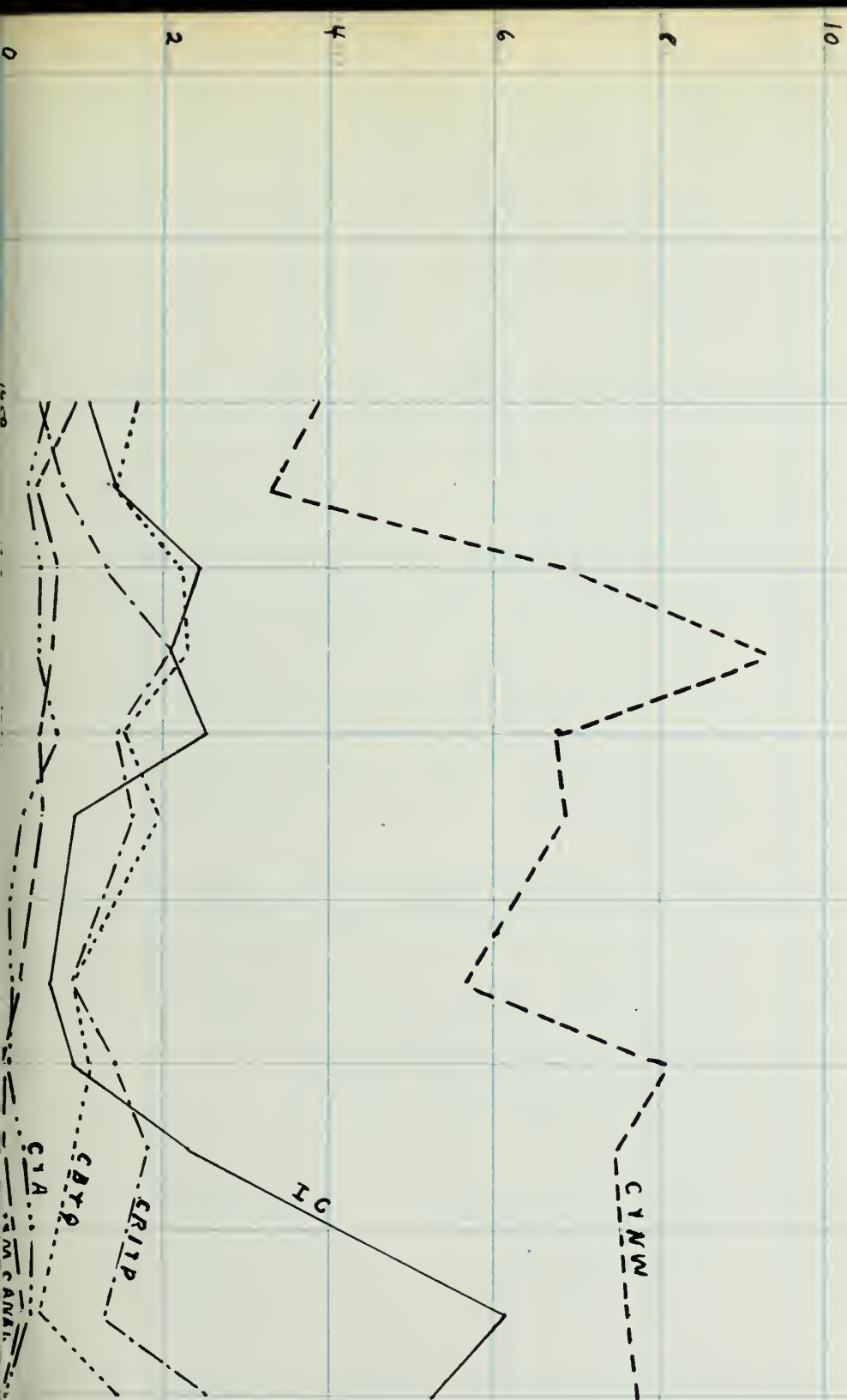
OATS RECEIVED AT CHICAGO





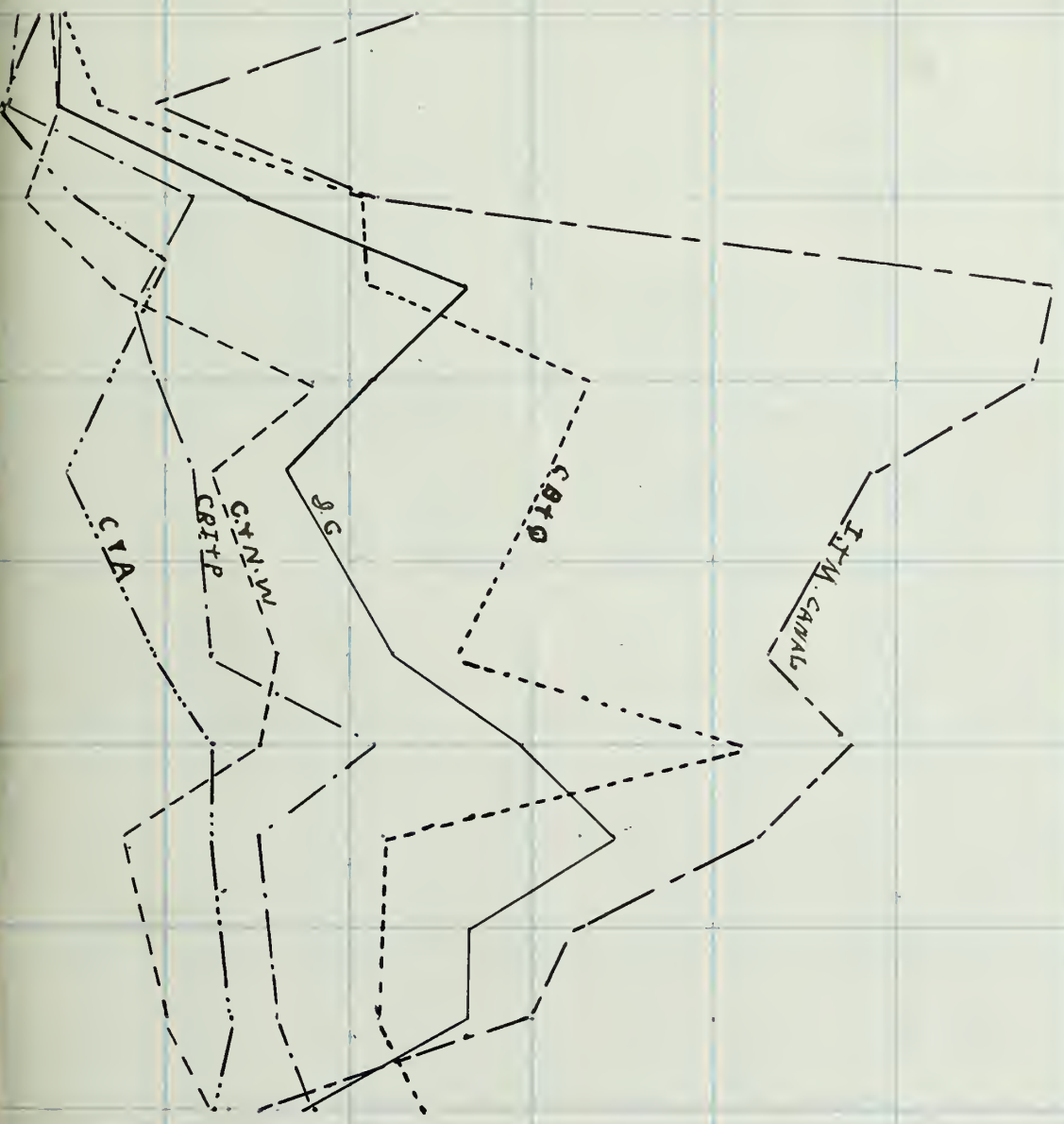
WHEAT RECEIVED AT CHICAGO

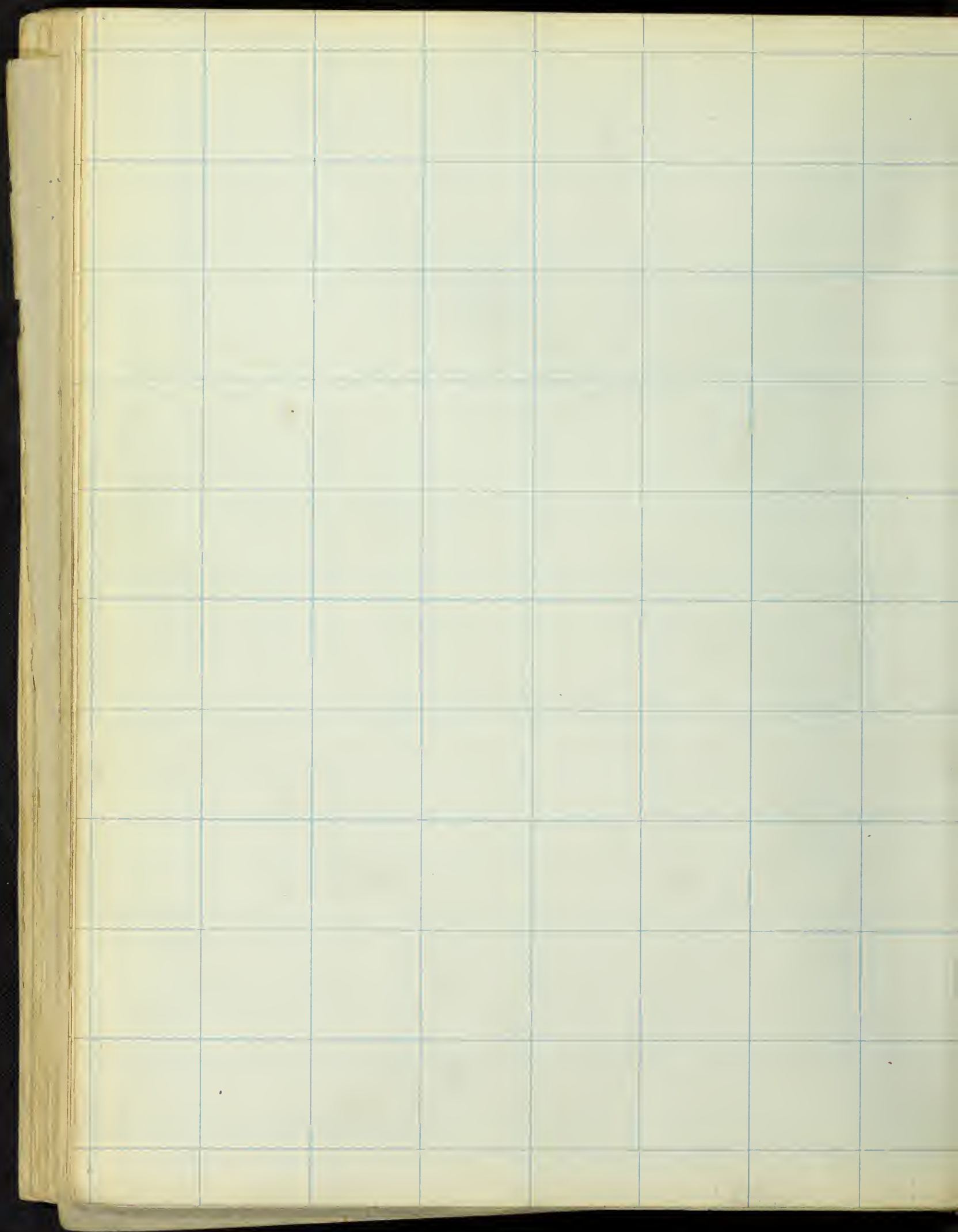
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USHEAS



10

GORN RECEIVED AT CHICAGO





Quincy or Northwestern railroads for the Illinois Central on trackage agreements. Had this been included the proportion belonging to the latter road would have been much larger. As it was, 27.2% of all the grain received at Chicago came in over the tracks of the Illinois Central, although the Burlington, Northwestern and Rock Island systems had each a much larger mileage. ^{1 69}

While the great bulk of the grain handled by the company, despite its efforts to divert the traffic southward, was forwarded to Chicago, the receipts at Cairo showed a healthy growth during the period, and for occasional years were almost as large as the receipts at the northern end of the road. Prior to 1860 the amount of wheat, corn and oats handled at Cairo was only nominal, but in that year, and the first few months of 1861, the southern movement assumed considerable importance as the result of energetic efforts on the part of the traffic department.

GRAIN SHIPMENTS TO CAIRO UNIM-
PORTANT EXCEPT
DURING THE CIVIL
WAR PERIOD

ment. River and railroad connections to Mobile and New Orleans were improving and the company believed ^{70 2} this growth was permanent. These prospects were rudely shattered by the outbreak of the Civil War and the occupation of Cairo by the federal troops entirely destroyed the southern grain trade. During the struggle a large proportion of the supplies furnished the Union armies in Kentucky and Tennessee were forwarded by way of Cairo, and the receipts at that city were larger from 1861 to 1867 than ever before. The demand for oats was especially large, and from 49,068 bushels in 1855 the movement increased to 4,622,408 bushels in 1864. ^{71 8}

The demands of the army for corn, although not as large as the demands

^{1 64} Annual Reports, Chicago Board of Trade, 1858 to 1870; Annual Report, Illinois Central Railroad, 1856 to 1870, showing number of bushels of grain turned over to the respective connecting lines.
⁸⁷⁰ Annual Report, Illinois Central Railroad, 1860, 1861.
⁸⁷¹ Ibid., 1861 to 1870. Most of the grain was destined, directly or indirectly, for the army.

for oats, were considerable and were supplemented by the requirements of the civil population of the South. Thus, the maximum receipts occurred in 1866, just after the close of the war, and amounted to 2,359,841 bushels, as against only 6,873 bushels in 1855. ⁷² The war had

⁷⁰
Annual Report, Illinois Central Railroad, 1855-1866.

The following tables show the proportion of grain received at Chicago and Cairo from 1855 to 1870, inclusive.

Illinois Central Railroad

Table VII

0.4

COMPARATIVE RECEIPTS OF CORN AT CHICAGO AND CAIRO, 1855-1870 ⁷⁵

0.4

0.4

0.4

0.4

TOTAL

CHICAGO

CAIRO

MISCELLANEOUS

1855	902,600	402,105	44.5	6,873	.7	54.8
1857	679,843	242,115	36.7	6,116	.9	62.4
1858	993,571	758,921	76.3	4,187	.4	23.3
1859	943,967	780,943	82.7	22,823	2.4	1
1860	3,691,777	2,839,659	77.0	727,880	19.7	3.3
1861	7,724,399	5,341,303	69.1	2,119,320	27.5	3.4
1862	6,024,156	4,346,301	72.1	166,536	2.8	25.1
1863	4,149,999	3,597,331	86.5	17,863	.4	13.1
1864	2,339,653	1,721,749	73.5	228,508	9.3	17.2
1865	6,203,513	4,433,270	71.5	1,133,220	17.9	10.6
1866	8,024,035	5,443,824	67.8	2,350,841	29.4	2.8
1867	7,820,560	5,970,519	76.4	1,678,090	21.4	1.2
1868	5,844,930	5,844,930		109,370		
1869	5,717,890	5,334,260		23,460		
1870	5,114,130	3,533,310		287,880		

~~Taken from~~ Annual Reports, Illinois Central Railroad, 1855-to 1870.

For some reason, the total number of bushels of oats, corn and wheat handled in 1868, 1869, and 1870, does not correspond with the statistics before 1868 and no percentages can be obtained for those three years.

The Miscellaneous item includes shipments turned over to connecting roads, such as the Chic and Mississippi and the Galena and Chicago Union, or delivered at local stations. The large percentage in this column before 1860 shows the importance of the Galena and Chicago Union connection. In 1863, 1864, and 1865 considerable quantities of grain ~~xx~~ were turned over to the O. & M. for the use of the army.

practically no influence on the receipts of wheat and the tonnage of either wheat or flour increased until after the war. After the resumption of peace the receipts of all grains at Cairo continued large,

Annual Report, Illinois Central Railroad, 1855-1870.

COMPARATIVE RECEIPTS OF OATS AT CHICAGO AND CAIRO, 1855-1870.

	TOTAL	CHICAGO		CAIRO		MISCELLANEOUS
1855	461,000	209,600	44.5	49,068	10.6	44.1
1857	670,424	160,265	36.7	95,881	14.3	61.8
1858	409,325	141,334	76.3	17,551	42.9	22.5
1859	622,449	137,596	82.7	294,595	47.3	30.7
1860	1,329,108	202,967	77.0	934,007	71.1	13.1
1861	793,244	262,209	69.1	457,398	59.2	7.8
1862	1,760,066	554,659	72.1	427,693	24.2	45.4
1863	4,581,731	605,040	86.5	2,083,639	43.3	43.3
1864	7,794,095	214,158	73.5	4,629,408	59.5	13.0
1865	4,518,731	1,605,443	71.5	2,141,806	46.4	18.2
1866	4,002,825	2,358,285	67.8	836,115	20.4	20.9
1867	4,863,110	3,302,140	76.4	1,136,530	23.4	8.1
1868	5,082,090	5,082,090		350,900		
1869	3,830,620	4,015,590		522,340		
1870	5,641,870	4,258,340		1,414,180		

1855	1,478,060	402,105	40.8	33,704	2.06	56.4
1857	2,514,181	242,115	5.2	107,079	4.3	90.5
1858	2,169,902	758,921	50.1	72,110	3.3	46.6
1859	1,882,292	780,943	75.7	33,241	1.8	22.5
1860	3,462,276	2,839,659	69.6	115,880	3.3	27.1
1861	4,071,971	5,341,303	55.0	89,029	2.2	48.8
1862	4,688,755	4,346,301	54.1	28,185	.6	45.3
1863	2,823,464	3,597,331	35.8	28,540	1.1	60.1
1864	3,004,500	1,721,749	53.9	58,759	1.9	44.2
1865	1,922,387	4,433,270	36.3	133,180	6.9	53.8
1866	3,740,946	5,443,824	23.5	159,532	4.2	72.3
1867	3,958,280	5,970,519	52.5	126,770	3.2	44.3
1868	2,948,110	5,844,930		82,520		
1869	3,022,110	5,334,260		222,220		
1870	1,947,270	3,533,310		112,060		

These per cents should read: 45.3; 23.9; 34.4; 22.0; 15.8; 33.0; 30.4; 13; 4; 27.5; 35.4; 58.7; 67.9.

but the amount received from year to year varied considerably. Corn more than held its own in 1865, 1866, and 1867, but dropped to only 109,370 bushels in 1868, 23,460 bushels in 1869 and 287,880 bushels in 1870, as against an average of over sixteen hundred bushels in the three preceeding years. Oats decreased in a similar way in 1868 and 1869, but recovered in 1870. Wheat actually increased after the war. These fluctuations were much greater than at Chicago and indicate the lack of strength in the southern movement of cereals. In the aggregate the total number of bushels forwarded to Cairo as compared with Chicago were small, except during the six years from 1861 to 1867.⁷⁴

Next to grain the most important agricultural commodity carried by the Illinois Central was live stock---sheep, hogs and cattle. Conditions in the packing industry from 1856 to 1870 were radically different from what they are now and there were serious restrictions upon the development of the industry. Refrigerator cars were not in gen-

CONDITIONS IN LIVE
STOCK INDUSTRY PRE-
VENT its BECOMING
EXTREMELY IMPORTANT

eral use and the transportation of fresh meat was not possible. This prevented the centralization of the meat packing in the West, ^{which took place} as was

the case a few years later, and the shipment of pork, beef and mutton to the eastern states. Instead, most of the meat used in that territory was packed in local establishments from homebred live stock, or animals sent from the West on the hoof. Even the shipment of western live stock for slaughter in eastern cities was handicapped by the high cost of railroad transportation---shipment by lake being out of the question---and ^{the} the difficulty of carrying the animals long distances

⁷⁴ Annual Report, Illinois Central Railroad, 1855 to 1870; cf. Report of the Delegates Appointed by the English and Dutch Shareholders, 1877, also page 148, for a general treatment of the traffic of the railroad.

without great depreciation in value. Moreover, the number of small, local packing houses was large in the West as well as in the East. On the other hand great quantities of pork and beef were salted or pickled and in that condition could be carried long distances. Thus, the market for meat products was not confined entirely to the territory within a few miles of the packing house.

The conditions outlined above affected the Illinois Central in two ways. The high cost of transporting live stock prevented the use of the territory beyond the Mississippi until after the close of the Civil War, and made Illinois the natural center of the industry. Moreover, from 1856 to about 1863 or 1864 only that portion of the state within a hundred and fifty miles of Chicago, which even then was the center of live stock shipment, could send its sheep, hogs or cattle to market. But while this gave the central counties of the state an advantage over

LACK OF MEANS OF
TRANSPORTING LIVE
STOCK BOTH HELP
AND HINDER CENTRAL
ILLINOIS

their competitors it limited the number of animals which could be slaughtered at Chicago or sent east from there to the packing houses on the

Atlantic Coast. As the number of farmers was comparatively small at this time, it ~~made~~^{was} it profitable for them to raise live stock, but restricted the number ^{of cattle} carried on the railroad. After the Civil War railway rates were reduced and the trans-Mississippi territory became a strong competitor of central Illinois.

There were other influences of a somewhat local nature which affected the industry in the counties along the Illinois Central. One of the most important of these was the cost of corn. Prior to 1860 corn on the farm was of little value and it was usually cheaper to feed it to swine or cattle than ^{to} attempt to ship it. Thus, the amount of grain forwarded from local stations along the railroad was much smaller than

the large crops would have permitted. During the Civil War period the price of corn was high and the farmers found it more profitable to ship it in bulk than "on the hoof". After the war there was a decline in the price of corn, and the high prices of meat induced the farmers to raise a much larger number of animals than before.

As would be expected from these changing conditions, the number of live stock on the farms of the state fluctuated, although the general tendency was upwards. The central counties profited the most by this

CENTRAL COUNTIES OF ILLINOIS HAVE LARGE INCREASE IN LIVE STOCK FROM 1850 TO 1870 increase, although the number of animals was not in proportion either to the population or the amount of corn produced. Evidently, the growers

of the period did not find it profitable to fatten hogs and cattle entirely on corn, for the census returns show that the counties raising the largest amount of grain did not have the largest number of meat cattle. For some reason or other, possibly the high price of cotton which stimulated the production of wool as a substitute for cotton in the making of clothing, the number of sheep much more than doubled in the decade from 1860 to 1870 and nearly tripled in the central agricultural counties along the Illinois Central Railroad. ^{75x}

^{75x} The growth of the live stock industry in the state is shown by the following tables, which are taken from the census reports:

XVII. IX

NUMBER OF SWINE ON FARMS, 1850-70

	1850		1860		1870	
GROUP I	251,187	13.1x	449,079	17.9x	581,178	21.5x
GROUP II	620,536	32.6	1,110,097	44.3	1,074,946	39.8
COOK CO.	9,398	.5	13,587	.5	15,552	.6
TOTAL	630,934	33.1	1,113,684	44.8	1,094,467	40.4
STATE	1,915,907	100.0	2,502,308	100.0	2,703,343	100.0

Tables cont on p. 140

In the decade from 1860 to 1870 Chicago became the leading packing center of the country, and, thus, afforded a market for the growing number of live stock in the state and especially in that portion near the Illinois Central. Prior to the war the Illinois Central ranked second among the railroads entering Chicago in the number of hogs and cattle

X
XVIII.

NUMBER OF CATTLE ON FARMS, 1850-1870

	1850		1860		1870	
GROUP I	90,332	16.7%	166,615	17.2%	265,683	25.1%
GROUP II	187,954	34.6	436,096	45.1%	454,495	43.00
COOK CO.	11,155	2.6	14,312	2.00	14,431	1.4
TOTAL	199,109	37.2	455,408	47.1	468,926	44.4
STATE	541,209	100.0	970,799	100.0	1,055,499	100.0

XIX.

NUMBER OF SHEEP ON FARMS, 1850-1870

	1850		1860		1870	
GROUP I	138,403	15.5%	111,669	14.5%	292,605	18.6%
GROUP II	285,964	32.0	163,514	21.2	593,368	37.8
COOK CO.	13,496	1.5	8,653	1.1	10,622	.6
TOTAL	299,460	33.5	172,167	22.3	603,990	38.4
STATE	894,043	100.0	769,735	100.0	1,568,286	100.0

The above tables are based on the Census reports on agriculture, 1850, 1860, 1870.

The first of these is the fact that the
 number of the series is not the same as the
 number of the terms in the series. The number
 of the series is the number of the terms in the
 series, and the number of the terms in the series
 is the number of the terms in the series.

Year	1880	1881	1882	1883	1884	1885
Population	1,000,000	1,050,000	1,100,000	1,150,000	1,200,000	1,250,000
Area	100,000	105,000	110,000	115,000	120,000	125,000
Population per square mile	10	10.5	11	11.5	12	12.5

Year	1880	1881	1882	1883	1884	1885
Population	1,000,000	1,050,000	1,100,000	1,150,000	1,200,000	1,250,000
Area	100,000	105,000	110,000	115,000	120,000	125,000
Population per square mile	10	10.5	11	11.5	12	12.5

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 number of the terms in the series. The number
 of the series is the number of the terms in the
 series, and the number of the terms in the series
 is the number of the terms in the series.

received, being preceded by the Chicago, Burlington and Quincy and closely followed by the Northwestern, ^{the} Rock Island and ^{the} Alton. ⁷⁶ During the war the high price of corn and other unfavorable conditions affected the Illinois Central more than the other roads, and it brought in the smallest number of any of the large systems. ⁷⁷ Beginning with 1866

COMPARATIVE IMPORTANCE OF ILLINOIS CENTRAL AND OTHER RAILROADS IN LIVE STOCK RECEIPTS

the territory tributary to the Central was better situated than its competitors, and the railroad again assumed second position, with the Burlington still ahead. ⁷⁸ The other three important roads were not far behind, and excepting the Burlington, there was no a great difference between the number handled by each.

The growth of the Illinois Central in shipments to Chicago was not only relative, but absolute. ^(There were shipped to Chicago) (It brought into the city over four times as many hogs and cattle in 1870 as the average from 1858 to 1860,) and was almost as great as the general increase of tonnage on the road. At

LIVE STOCK MOVEMENT AN IMPORTANT PART OF ILLINOIS CENTRAL TRAFFIC: 1850-70

⁷ the same time, the shipments of live stock constituted an appreciable part of the traffic of the road. For instance, in 1870, the Chicago Board of Trade

credits the railroad with receipts of 379,513 hogs, 87,915 cattle, and 89,597 sheep, equivalent to about eighty eight thousand tons. ⁷⁹ This was equivalent to 6.5% of the total tonnage handled by the system in that year. ⁸⁰ As the rates and the average haul of this class of freight were considerably greater than the average the business must have amounted to at least ten per cent of the gross earnings. ⁸¹ The company endeavored to encourage live stock shipments, though entirely as an addition to the regular movement of grain, and the results, judging from the above, were satisfactory.

176 Annual Report, Chicago Board of Trade, 1858-~~to~~ 1861.

277 Ibid., 1861-~~to~~ 1866;

378 Ibid., 1866-~~to~~ 1870.

(Notes 4, 5, & 6 (continued on page 142) →

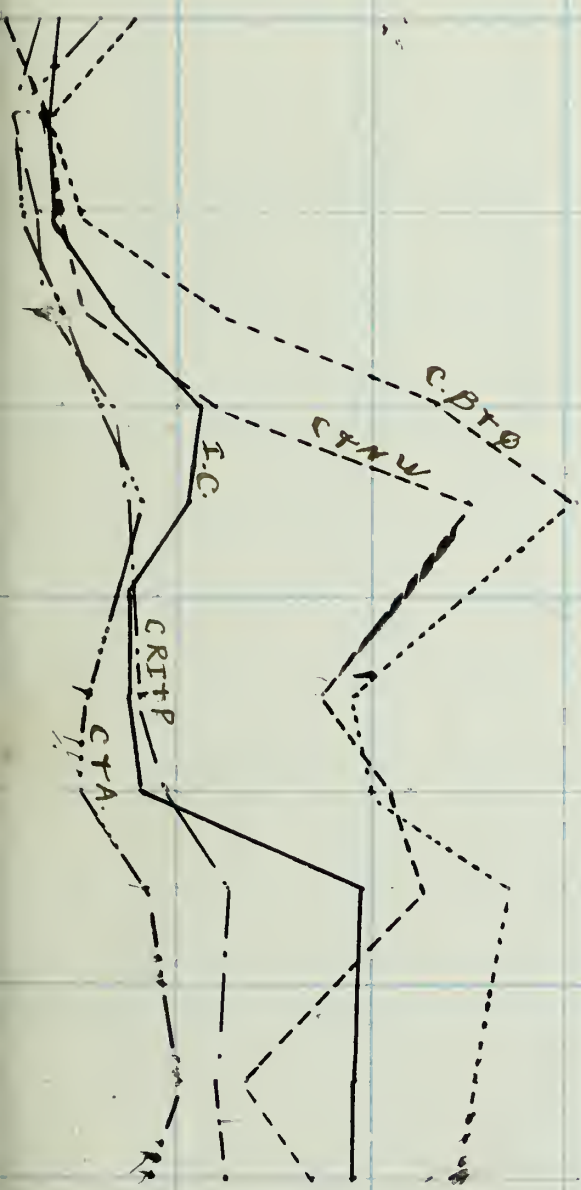
NUMBER OF HOGS
 RECEIVED
 AT
 CHICAGO
 II Page 141

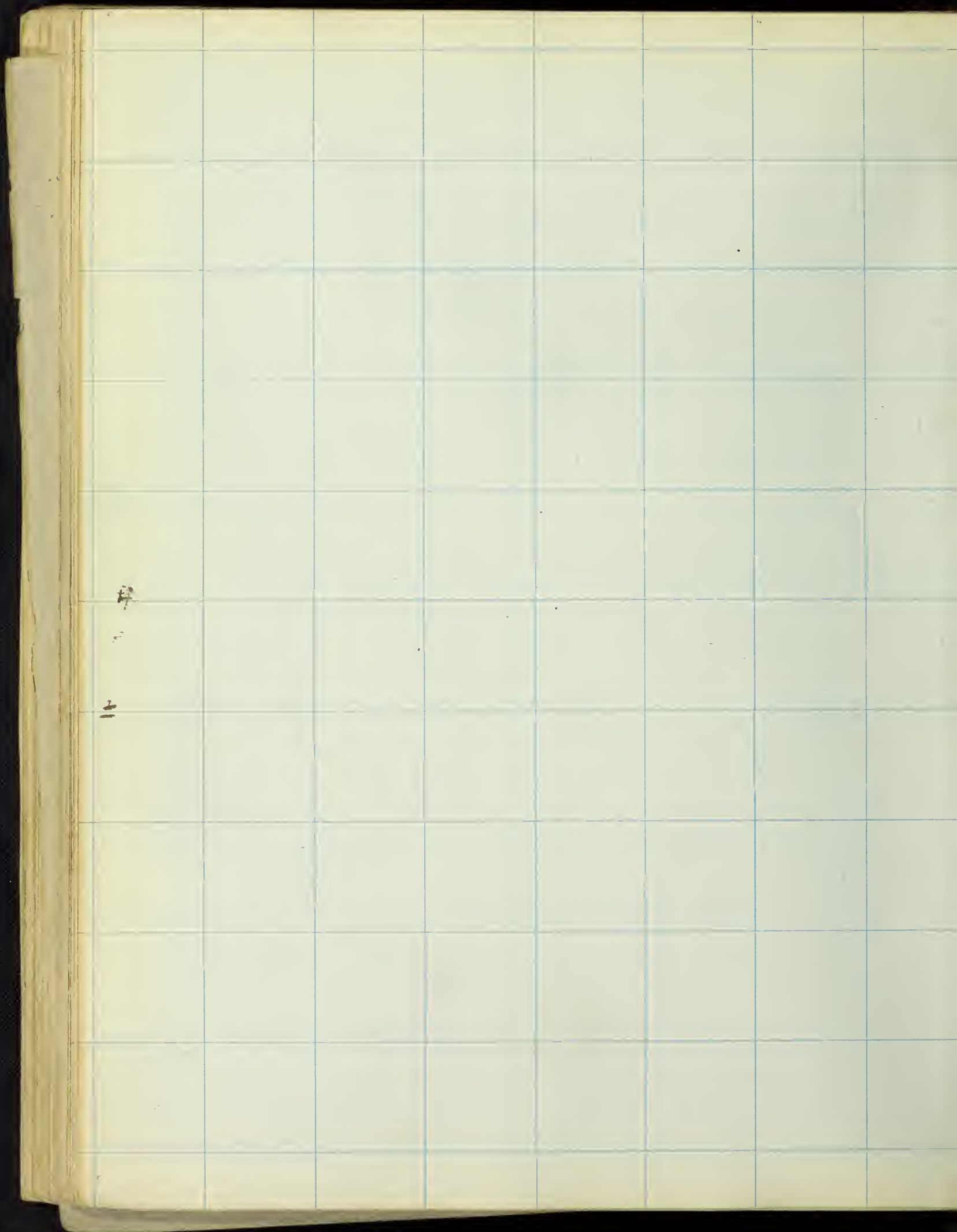
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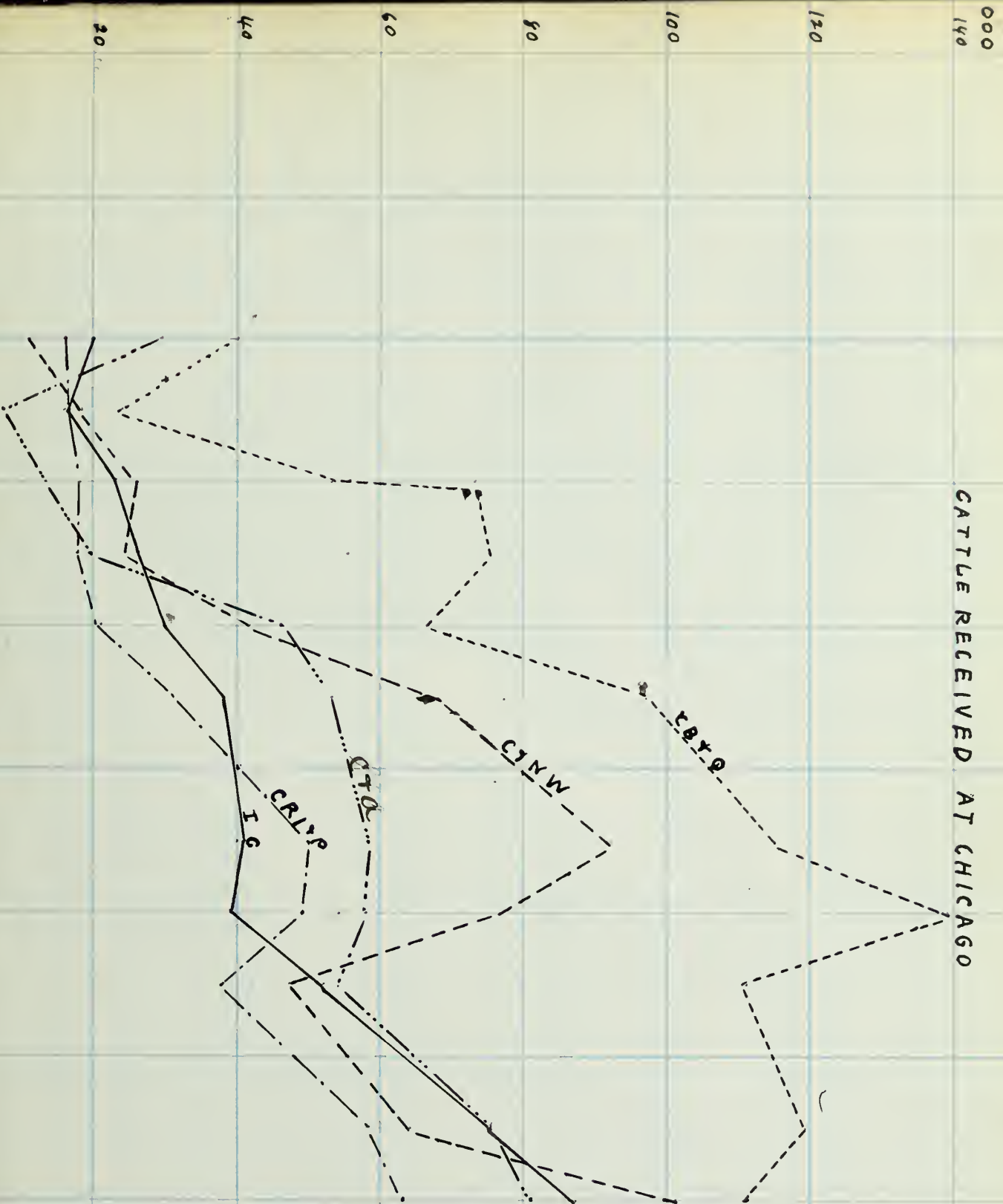
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IV Page 141

CATTLE RECEIVED AT CHICAGO





Nearly all the live stock handled by the company was sent to Chicago, and, in 1867, the last year for which complete data is available, 82.5 of the cattle, 85.8 of the sheep and 82.5 of the hogs were forwarded to that city. The demands of the local butchers were undoubtedly, were satisfied by animals driven into town on the hoof. Moreover, from a comparison of tables (xxviii, xix and xxx,) it is evident that the shipments over the Illinois Central constituted a large proportion of the number of animals on the farms immediately contiguous to the railroad. Thus, from the rapid increase in the shipments to Chicago and the correspondingly rapid growth after 1860 on the farms, it is safe to assume that the live stock industry was a reasonably profitable one.

The minor lines of agriculture, such as truck farming, fruit growing, dairying, the production of hay, vegetables, etc., were comparatively unimportant. Except for a small territory adjacent to Chicago there was little demand for truck or dairy products. Small quantities of butter, eggs, cheese, and vegetables were carried on the railroad, but the aggregate tonnage or earnings were insignificant, never exceeding one per cent of the gross tonnage. As the territory adjacent to the Illinois Central, except a few counties in the northern part of the state, is not adapted to either truck farming or dairying this is not surprising. The amount of hay handled was also small and constituted about a little over one per cent of the gross tonnage and about the same proportion of earnings.

(continued from page 141) Annual Report, Chicago Board of Trade, 1870. The figures are not given by the railroad company. Sheep and hogs are estimated at 200 each, cattle at 1000.

Annual Report, Illinois Central Railroad, 1870.

Ibid.

Pages 139, 140.

Annual Report, Illinois Central Railroad, 1855-1870.

Ibid.

Fruit growing was more important. Southern Illinois between Cairo and Centralia was well adapted to fruit raising and by the close of the Civil War this region was sending considerable quantities of apples, peaches, strawberries, and other small fruit to the Chicago market.

FRUIT GROWING IN
SOUTHERN ILLINOIS
IMPORTANT

During the height of the season special trains were run from Cairo to Chicago on passenger schedule and the fruit was placed in the city in time for the morning markets. The railroad encouraged the development of this traffic by special service and reduced rates, and a large proportion of the perishable fruit supply of Chicago came from southern Illinois. Express rates were charged for the freight----not unreasonable considering the service and character of the commodity---but the total revenue was small. As late as 1870 only ten thousand tons of both vegetables and fruit were handled by the railroad. ⁸⁴₁

On the whole, the Illinois Central developed the agricultural resources of the territory dependent upon it as much as could reasonably have been expected. While rates on grain, live stock, and other farm products were high and prevented a larger movement than took place,

ILLINOIS CENTRAL DEVELOPS
AGRICULTURAL INTERESTS OF
TERRITORY DEPENDENT ON IT
AND THE TERRITORY DEVELOPS
THE RAILROAD

the railroad ^{established} put in as low charges as would yield it a good profit. Methods of operation common to all railroads of the

period, the lack of a large tonnage, the geographical location of the line, the direction of traffic, all combined to make low charges impracticable. The Illinois Central was not the only railroad handicapped by these difficulties and, taking everything into consideration, it did as much to build up the portion of the state through which it passed as the Northwestern, Burlington, Rock Island, or Alton did to as-

sist the counties of Illinois, Wisconsin or Iowa through which they ran. On the other hand, the farms of the state developed the railroad as much as the railroad developed their interests. The over sanguine prophecies of Vice-President Neal were not fulfilled until after the Civil War, but after the central part of the state once commenced to grow it turned over to the railroad all the grain and live stock it could handle. Certain unforeseen circumstances prevented an earlier growth, but even during the four or five years immediately after the construction of the road the ^{tonnage carried of products} agricultural ~~tonnage handled~~ was considerable.

Next to agricultural products lumber was the most important commodity handled by the railroad. Except along the streams central Illinois between Wankakee and Effingham was very sparsely wooded, and what ^{timber} ~~time~~ was found was poorly adapted for fuel or building purposes. Necessarily, most of the lumber and wood used in this region had to be brought from places where timber was more abundant. In 1856 to 1870 there were three sources from which the supply came; (1) southern Illinois; (2) northern Illinois and southern Wisconsin; (3) the timber regions of the Northwest (handled by way of Chicago). As the amount of building going on during the settlement of the state ^{was} large in proportion to the population and as wood was the common fuel until long after 1870 the demands for lumber ^{and} ~~or~~ wood were large. ⁸⁵

Places along the main line and the Chicago branch as far north as Vandalia and Mattoon were supplied from the forests of southern Illinois. A small territory just south of the Illinois river depended on northern Illinois and southern Wisconsin. The remainder of the supply

⁸⁵ Letters of David Neal and Robert Rantoul on resources of Illinois, in Documents Relating to the Organization of the Illinois Central Railroad. Cf. pages 123, 124, 125, note (*).

THE HISTORY OF THE UNITED STATES OF AMERICA
FROM 1763 TO 1789
BY JAMES M. SMITH
VOLUME I
CHAPTER I
THE BEGINNING OF THE REVOLUTION
The first step towards independence was taken in 1776 when the Continental Congress declared the thirteen colonies to be free and independent states. This declaration was a bold move, as it meant that the colonies were no longer subject to British rule. The British government, however, did not accept this declaration and continued to fight the Revolutionary War. The war ended in 1781 with the British surrender at Yorktown, which led to the signing of the Treaty of Paris in 1783. This treaty recognized the independence of the United States.

THE HISTORY OF THE UNITED STATES OF AMERICA
FROM 1763 TO 1789
BY JAMES M. SMITH
VOLUME I
CHAPTER II
THE CONSTITUTION
The Constitution was drafted in 1787 and ratified in 1789. It established the framework for the federal government, including the executive, legislative, and judicial branches. The Constitution also guaranteed certain rights to the citizens, such as the right to a fair trial and the right to free speech. The Constitution is the supreme law of the United States and has been amended several times since its adoption.

THE HISTORY OF THE UNITED STATES OF AMERICA
FROM 1763 TO 1789
BY JAMES M. SMITH
VOLUME I
CHAPTER III
THE EARLY YEARS OF INDEPENDENCE
The early years of independence were marked by challenges and setbacks. The new government had to establish itself and deal with various issues, such as the economy and foreign relations. Despite these challenges, the United States emerged as a new and powerful nation. The early years also saw the growth of the American people and the development of a unique American identity.

came from Chicago. Practically all the lumber that left the city by railroad was sent south over the tracks of the Illinois Central, and this one item amounted to over half of the total tonnage forwarded from Chicago by the company. At first the rates on lumber were placed so high it could not be transported more than a hundred to a hundred and fifty miles and the poorer wood from the southern part of the state

LARGE AMOUNT OF LUMBER FORWARDED FROM CHICAGO was used in considerable quantities. Later improved methods of operation and the presence of a large number of empty cars in Chicago, arising from the excess of northbound over southbound shipments, enabled the company to reduce its charges. These reductions stimulated the growth of shipments from Chicago, and by the close of the decade from 1860 to 1870 nearly ninety per cent of the lumber handled by the railroad originated in Chicago. ⁸⁶ At the same time the absolute tonnage forwarded steadily increased, though much more slowly than the general traffic of the system. As the heavy movement of grain and live stock to Chicago ^{greatly} exceeded the return shipments of merchandise and miscellanies, the growth of the lumber traffic provided southbound loads for a large proportion of the equipment. By this arrangement the cost of carriage of both grain and lumber could be reduced and lower rates ^{established} ~~followed~~. The result was beneficial to the agricultural districts of the state in that it increased the price of their corn or wheat and decreased the cost of lumber and fuel. ⁸⁷

⁸⁶ Annual Report, Illinois Central Railroad, 1867.
⁸⁷ The fact that the Illinois Central had a large return tonnage from Chicago was an important factor in keeping the rates on grain and live stock from advancing. Instead of the northbound freight having to stand the cost of carriage both ways, loaded up and empty down, it had to provide for only the upbound expenses.

The third largest single article of freight handled by the railroad was coal. As stated in chapter I, ~~there~~ there were three important coal fields near the Illinois Central; the Danville, Duquoin, and La Salle mines. A few scattered mines were in existence, but their output was of slight importance. When the railroad was built it was supposed that the mines near Danville would ship large quantities of coal to Chicago by way of the Great Western, now the Wabash, to Tolono, and ^{the} the Illinois Central from there north. ~~The~~ The company was disappointed in this expectation and for various reasons, principally the competition of the Ohio coal, the tonnage handled was negligible. ~~The~~ The other two fields were of more importance. At first the mines at both places were handicapped by a high cost of ~~raising coal~~ ^{operation}, but as the country became more thickly settled and the mines larger this difficulty was removed. Their usefulness, however, was limited by the high railway charges in effect. In 1856 to 1870 the small amount of tonnage handled, the poor methods of operation, and other causes, made it absolutely impossible for the railroad to make low rates on such bulky goods as coal. From a cent to a cent and a half a ton a mile was the lowest charge the Illinois Central made under the most favorable conditions. As the coal fields were from two hundred to two hundred and fifty miles from a large market the high tariff prevented the transportation of coal to those markets. Under ordinary circumstances a hundred miles was about as far as the coal could be carried and the production of the mines was limited to the demands of such a territory. ~~§~~

~~Page 8.~~

~~Letter of D. Neal, Documents Relating to the Organization of the Illinois Central, of pages 123, 124, 125, note (4)~~

~~Railroad.~~

~~Annual Report, Illinois Central Railroad, 1855-56 1860.~~

~~J.W. Foster, Mineral Resources of the Illinois Central Railroad.~~

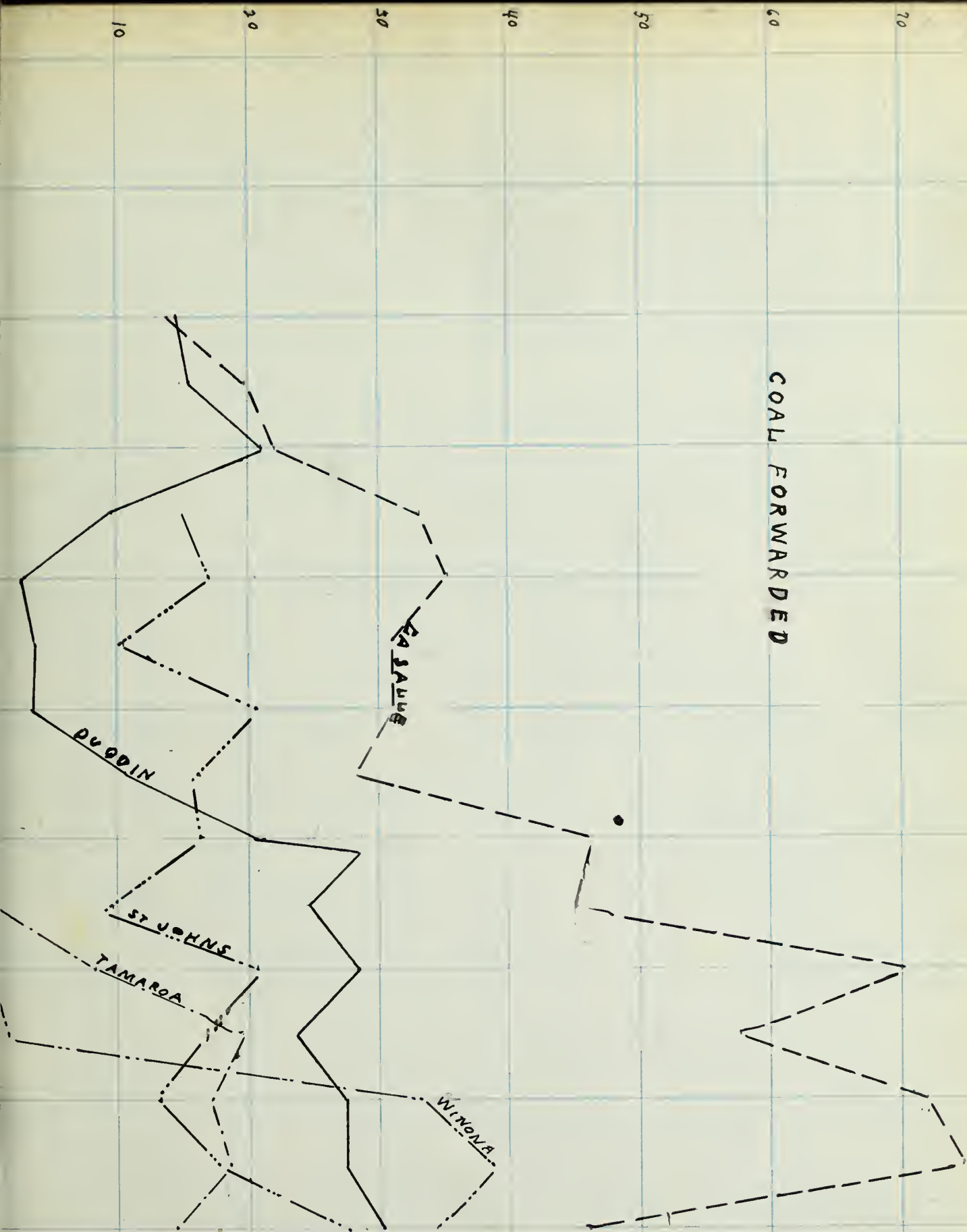
Moreover, coal, as a fuel, was forced to compete with wood. When the Illinois Central was built, wood was the universal fuel, and even the company's locomotives were wood burners. After a series of tests, the railroad began to use coal instead of wood on its engines, and, to increase its traffic, endeavored to stimulate the demand for "stone coal" as it was termed.⁹¹ For a long time the prejudice in favor of wood, supplemented by an abundance in districts near the mines, prevented its general use, and it was not until after the Civil War that coal was burnt to any considerable extent. Furthermore, Ohio or Pennsylvania coal, owing to the all water route, was much cheaper at Chicago than Illinois coal. Only a few mines on the Chicago and Alton, and Rock Island were in a position to compete with the eastern product.⁹² Under the circumstances, the market for coal mined on the Illinois Central was not great.

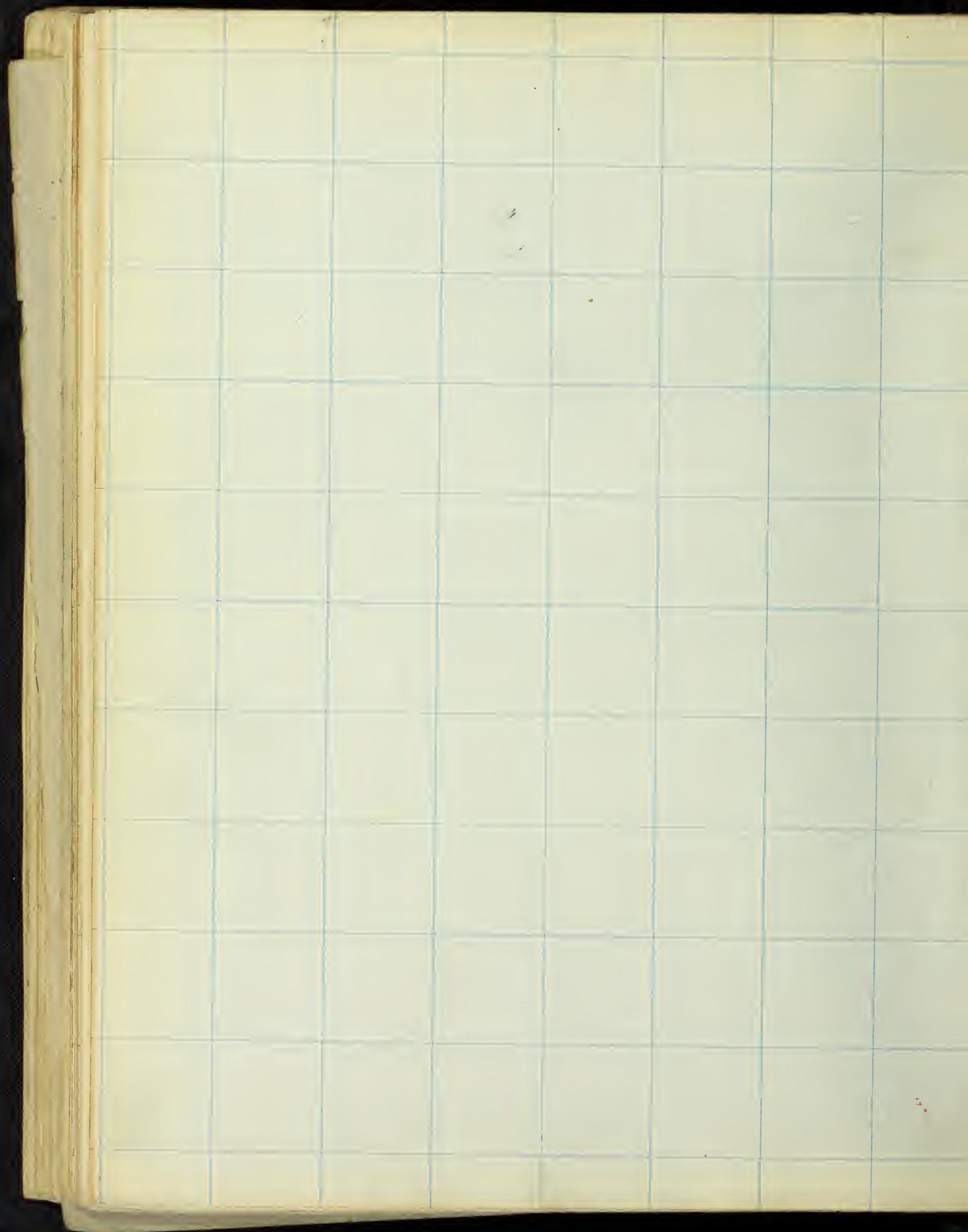
Nevertheless, there was a steady increase in the output.⁹³ Slightly over two hundred thousand tons, in addition to that used by the company, was forwarded from the mines in 1870. This was something over three times as much as was shipped in 1857, and thirteen times as much as in 1855.⁹⁴ From 1857 to 1864 the amount mined remained nearly stationary, but in the next seven years it increased to over two hundred thousand tons.⁹⁵ This was caused by the exhaustion of the forests, the growing demands for industrial purposes and the decline of the prejudice against coal. In 1870 it amounted to 14.9%^{d1} of all the tonnage handled by the railroad. Both the rates and the length of haul were less than the average and

⁹¹ Annual Report, Illinois Central Railroad, 1858.

⁹² The Chicago and Alton was the only railroad which brought any considerable amount of coal into Chicago. Chicago Board of Trade. ⁹³ Annual Reports, Illinois Central Railroad, 1855-1870. ⁹⁴ Ibid., 1870.

COAL FORWARDED





the total gross receipts must have formed a much smaller per centage of the total earnings. Taking into consideration earnings and cost of service, coal was of less importance to the railroad than the live stock traffic if the two are compared on the basis of gross and net earnings. The chief value of the coal traffic, ~~however~~, was in its indirect benefits to the manufacturing and commercial interests of the state, ~~although the net earnings from this class of traffic were of considerable importance.~~

The least prominent of the industries of Illinois affecting the Illinois Central was manufacturing. As has been stated several times before, Illinois was primarily an agricultural commonwealth in 1870, and the territory tributary to the "Central", aside from Chicago, was the distinctly farming portion. From Kensington to Cairo and from Centuria to Dunelith there were only three cities that were manufacturing centers of any prominence---Galena, Decatur, and Bloomington, and none

TERRITORY TRIBUTARY
TO THE ILLINOIS CEN-
TRAL PRIMARILY AG-
RICULTURAL IN CHAR-
ACTER

of these places had any large industries. Even Chicago was not an industrial center of the first rank. Its commercial interests, such as

shipping, the handling of lumber, live stock and grain and the transfer of freight between east and west lines, were very large, but it did not manufacture many ^{lines} of merchandise which were consumed by the agricultural population of the state. Farm machinery and such goods formed the great bulk of the merchandise ^{or miscellaneous} shipments originating there. ^{9.1} In the remainder of the territory tributary to the Illinois Central manufacturing was confined to the production of simple articles for local use, the important lines being the making of boots and shoes, clothing, woodenware and other articles of wood, some farm machinery, whiskey and

^{9.1} ^{volumes} Reports on manufacturing, 8th and ninth census (1860, and 1870),

The first thing I noticed when I stepped out of the car was the cold. It was a sharp contrast to the warm blanket of the car. I shivered slightly, but then I remembered that this was just the beginning. The air was crisp and clean, a welcome change from the stuffy interior of the car. I took a deep breath, feeling the cool air fill my lungs. The sun was shining brightly, casting long shadows on the ground. I looked up at the sky, feeling a sense of peace and tranquility. The world was so beautiful, and I was so lucky to be here.

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o her alcoholic liquors. In 1860 ^{less than} ~~under~~ one per cent of the total population in the counties between Shelby and La Salle were engaged in manufacturing, and the proportion in 1870 was not much larger. ^{sc}

Moreover, the products made in these village or city plants were those used in the immediate locality. With the exception of a few factories in Chicago and a much smaller number in the remainder of the Illinois Central territory the manufacturing establishments enumerated in the censuses did not send freight over the railroad. Nor did they bring in large quantities of raw material, since most of the goods they manufactured were made from materials raised locally or else ^{were} of comparatively small value. Thus, the total amount of freight handled to or from the manufacturies of the state ^{now} of much less importance than the products of mines, farms or forests.

^{Eight} 19c U.S. Census (1860), Volumes on ^{es} manufacturing and ^{es} agriculture.
 c. XII. 700

NUMBER OF HANDS EMPLOYED IN MANUFACTURES: 1860-70.

	1860	%	1870	%
GROUP I	2514	11.2%	8,401	10.2%
GROUP II	5151	22.9	16,991	20.4
COOK CO.	5593	24.8	31,105	37.6
TOTAL	10,745	47.7	48,096	59.0
STATE	22,489	100.0	82,979	100.0

XXII.

NUMBER OF ESTABLISHMENTS ENGAGED IN MANUFACTURE: 1860-70

	1860	%	1870	%
GROUP I	606	14.2%	1,928	15.3%
GROUP II	1,304	30.6	3,844	30.9
COOK CO.	469	10.7	1,440	11.4
TOTAL	1,773	41.3	5,284	42.3
STATE	4,268	100.0	12,597	100.0

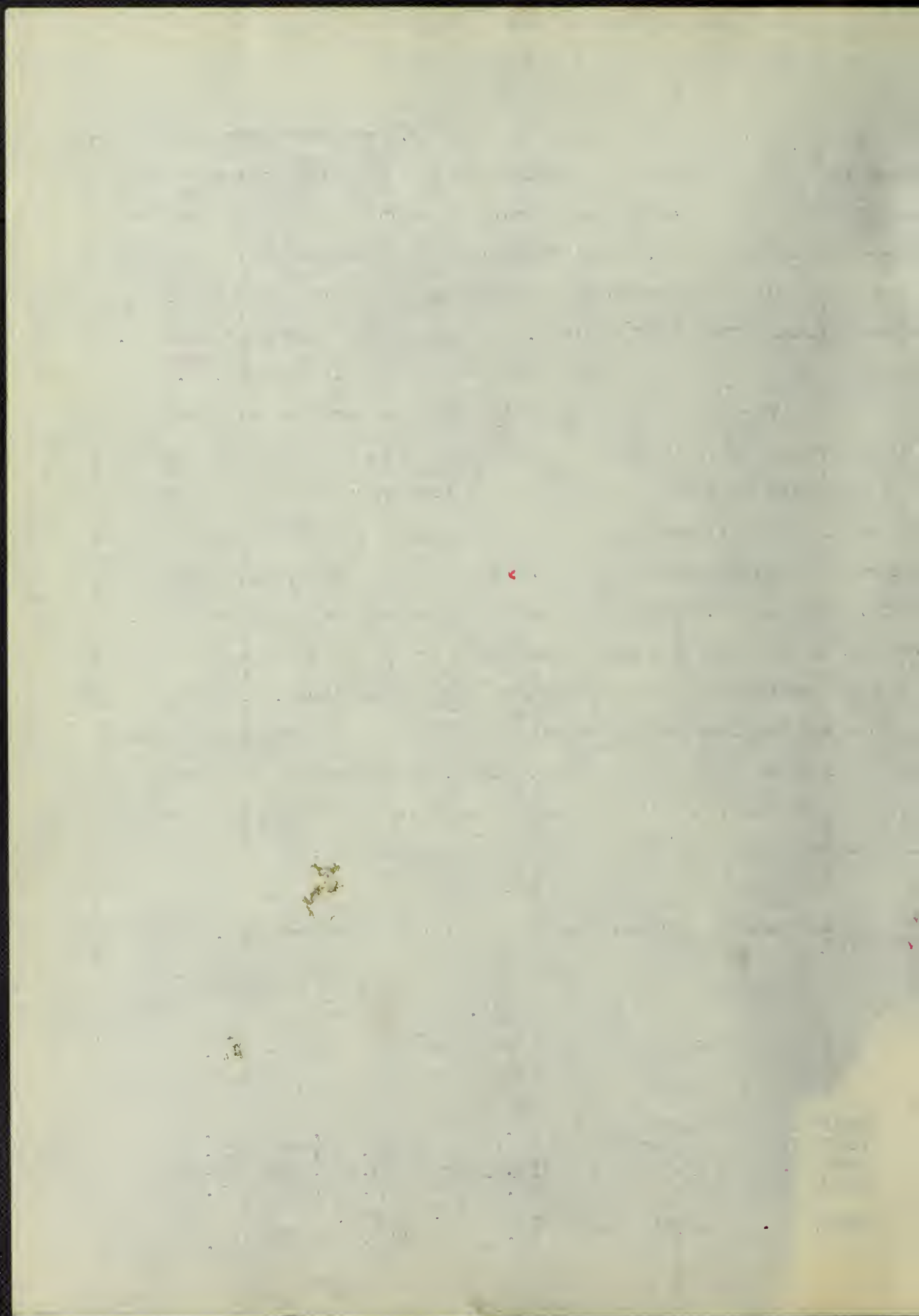
In addition to the movement of manufactured goods made in the state there was a large tonnage of merchandise and sundries either brought from the east for domestic consumption or sent over the railroad for points beyond its rails. Including domestic manufactures, the absolute amount and relative proportion of this high class freight ~~was on a~~ steadily increased from 1857 to 1870. In the former year it formed 14.5% of the total traffic and in 1870 21.1%.⁹⁷ DURING INCREASED MOVEMENT OF MERCHANDISE AND SUN- DRIES FROM 1856-1870 This time the absolute tonnage increased from 64,298 tons to 283,756 tons, or 342%.⁹⁸ As most of the freight classed as merchandise or sundry was carried at higher rates than the average and for longer distances, the gross receipts in 1870 must have amounted to nearly a quarter of the total earnings of the road, while the net results from this traffic, presumably, were even more satisfactory. However, it is uncertain just what items are included in sundries, and, for that reason, the above proportion may be too large. Furthermore, much of the merchandise was carried at through rates which were very much lower than the local charges. This, again, may be a cause of error. At any rate, the tonnage and gross earnings of the two items makes them second only to agriculture in importance.

⁹⁷ Annual Report, Illinois Central Railroad, 1855-~~to~~ 1870.
⁹⁸ Ibid.

XIII.

VALUE OF PRODUCTS OF MANUFACTURES: 1860-1870.

	1860	%	1870	%
GROUP I	\$6,020,000	10.5	\$18,217,000	8.9%
GROUP II	12,367,000	21.5	36,109,000	17.7
COOK CO.	13,555,000	23.5	92,518,000	45.2
TOTAL	25,922,000	45.0	128,627,000	62.9
STATE	57,580,000	100.0	205,620,000	100.0



The traffic of the railroad, viewed as a unit, increased even more rapidly than did the special lines mentioned above. In 1855 the central part of the state was thinly settled, there was not a large amount of surplus product to be shipped, nor were the settlers able to purchase any considerable quantity of merchandise, lumber, salt, or other necessities or luxuries. But as the railroad became better established, the number of people ^{with} tributary ^{territory} larger, and their purchasing power greater, there was a rapid development of the traffic of the road. In the sixteen years from 1855 to 1870 the number of tons of freight handled by the road as a whole, including the leased lines, grew nearly six fold and the number of ton miles nearly nine fold. ^{99.4} On the charter lines alone over five times as much tonnage was handled in 1870 as in 1855. ^{100.8} As the average rates remained about constant during the period gross earnings increased in about the same proportion as the number of ton miles. ^{101.5} By 1870 the traffic on the Illinois lines was about all that the company was able to handle with its equipment and the poor operating methods then in use, and this condition had existed since the commencement of the war. ^{102.4}

⁹⁹ Annual Report, Illinois Central Railroad, 1855 to 1870.
⁸⁰⁰ Ibid.
⁸⁰¹ Ibid.
⁴⁰² Ibid., of pages 199, 200, also chart.

C450.

XII.

XII

INCREASE IN FREIGHT TRAFFIC; SYSTEM

TONS OF
FREIGHTNUMBER OF
TON MILESAVERAGE
HAUL, miles

1855 241,704

1859 422,433

1870 1,623,944

51,650,364

265,409,371

122 miles.

163.43 "

INCREASE 1,401,511

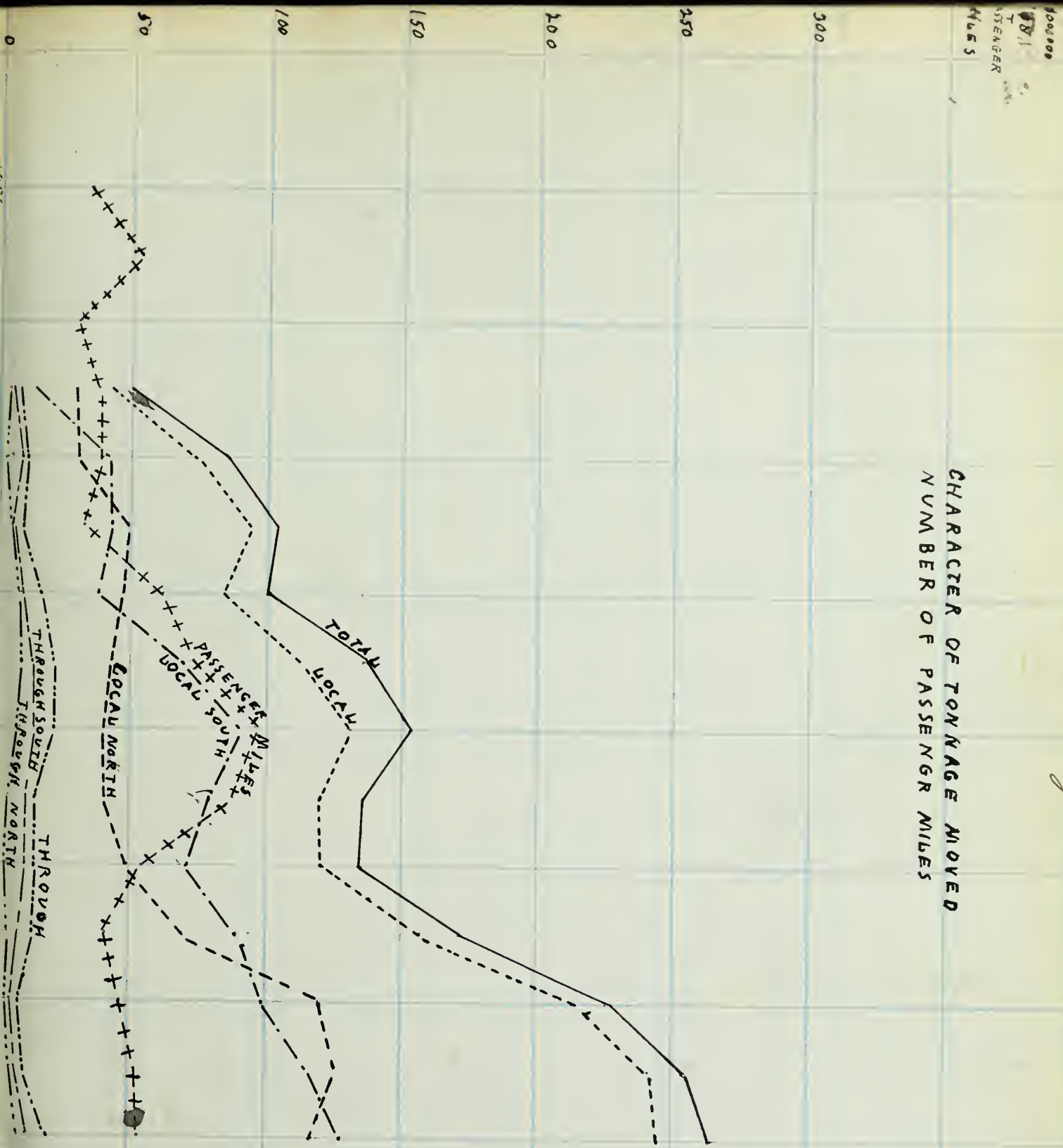
333% 213,759,007

413%

41.43 34.8%

C450

CHARACTER OF TONNAGE MOVED
NUMBER OF PASSENGER MILES



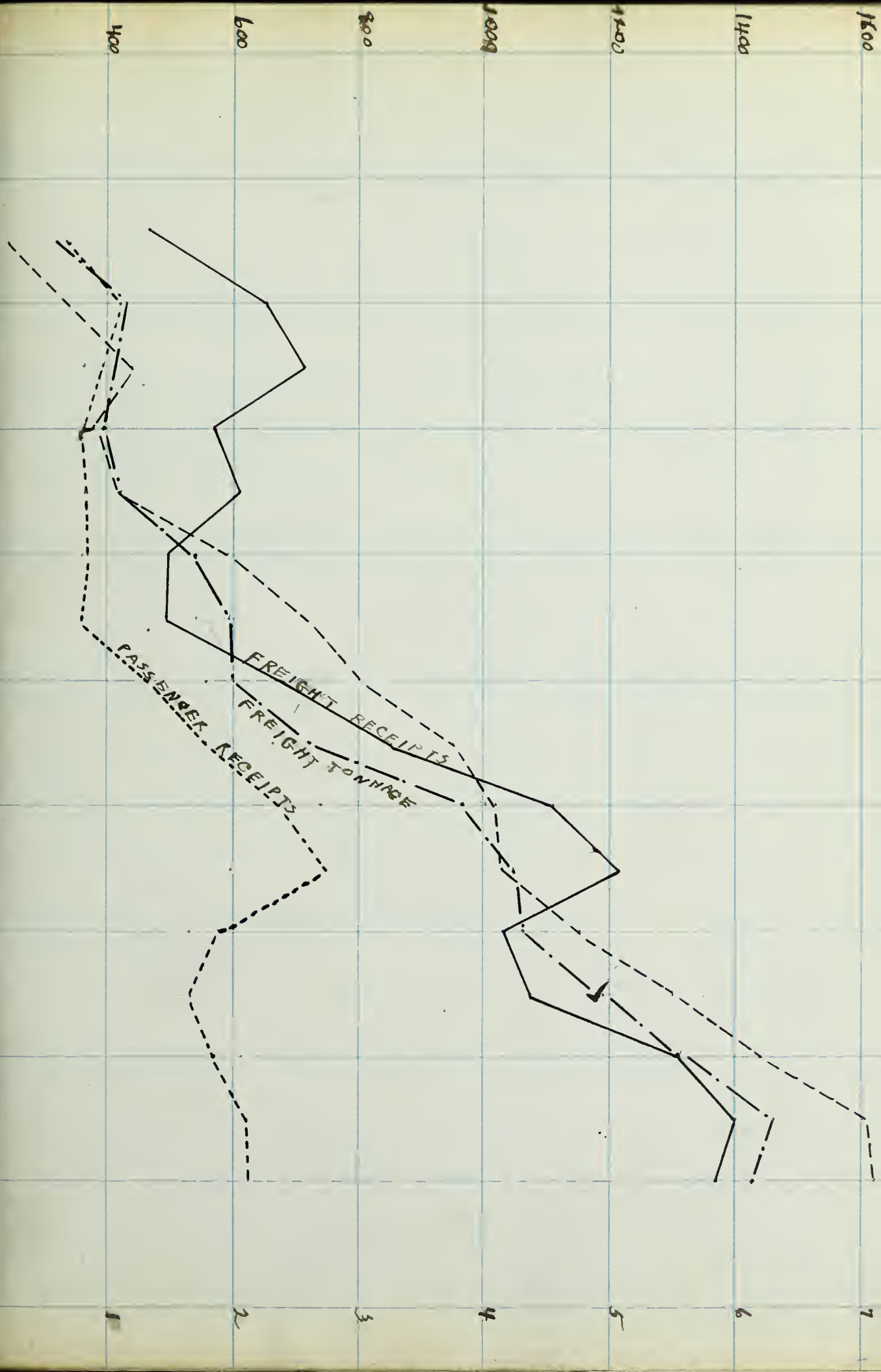
— 9 —

FREIGHT & PASSENGER
RECEIPTS & TONNAGE
ILLINOIS CENTRAL R.R.

IX Page 152

1905
000
OMITTED

DOLLARS
000000
OMITTED



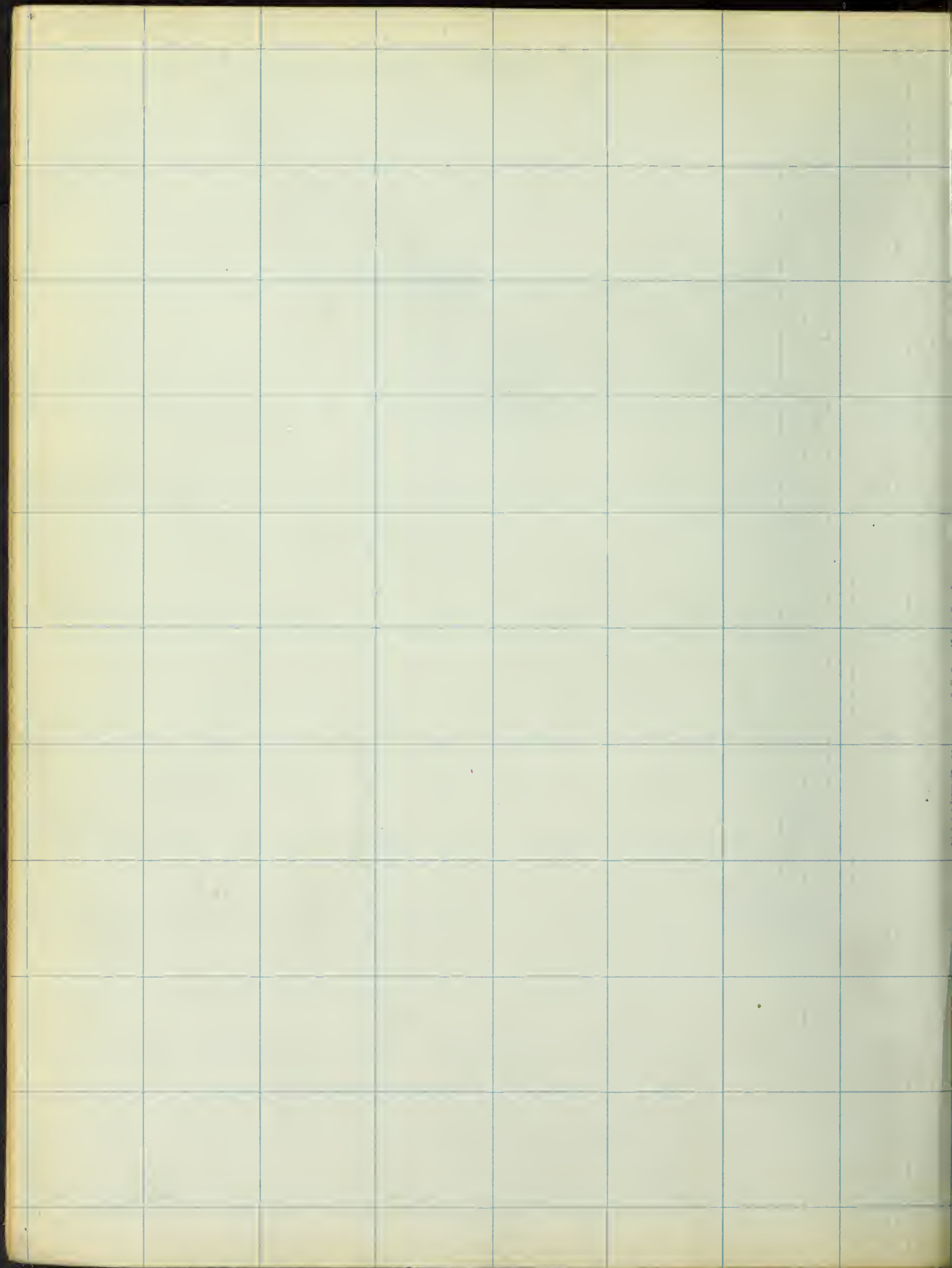


TONS
00000
MTRSD

TONNAGE RECEIVED AT
VARIOUS STATIONS ON
THE ILLINOIS CENTRAL R.R.

I Page 152





The great bulk of the freight handled by the railroad was classed as local, that is, it both originated and terminated at the company's stations. In 1868 over ninety six per cent was local, and only four per cent through. In no year was the proportion of the latter more than fifteen per cent, and usually it was ^{less than} ~~under~~ ^{10%} ten. Moreover, the local

THE GREAT BULK OF THE TRAFFIC CLASS-ED AS LOCAL traffic increased more rapidly than the through, despite the efforts of the company to increase its interchange business and to develop through connections. As the railroad reached the important distributing and receiving centers of the state over its own rails, ~~excepting~~ ^{with the exception of} St. Louis, through business was necessarily confined to shipments of merchandise and small quantities of miscellaneous articles. After the lease of the Dubuque and Sioux City the company had only one valuable traffic connection over which freight was sent on through billing---the St. Louis, Alton and Terre Haute, ^{which} including the Belleville and Southern Illinois, which crossed the lines of the Illinois Central at Pana, Mattoon, and Du Quoin. By means of

---703 XIII
~~ART. IV.~~ ---CHARTER LINES.

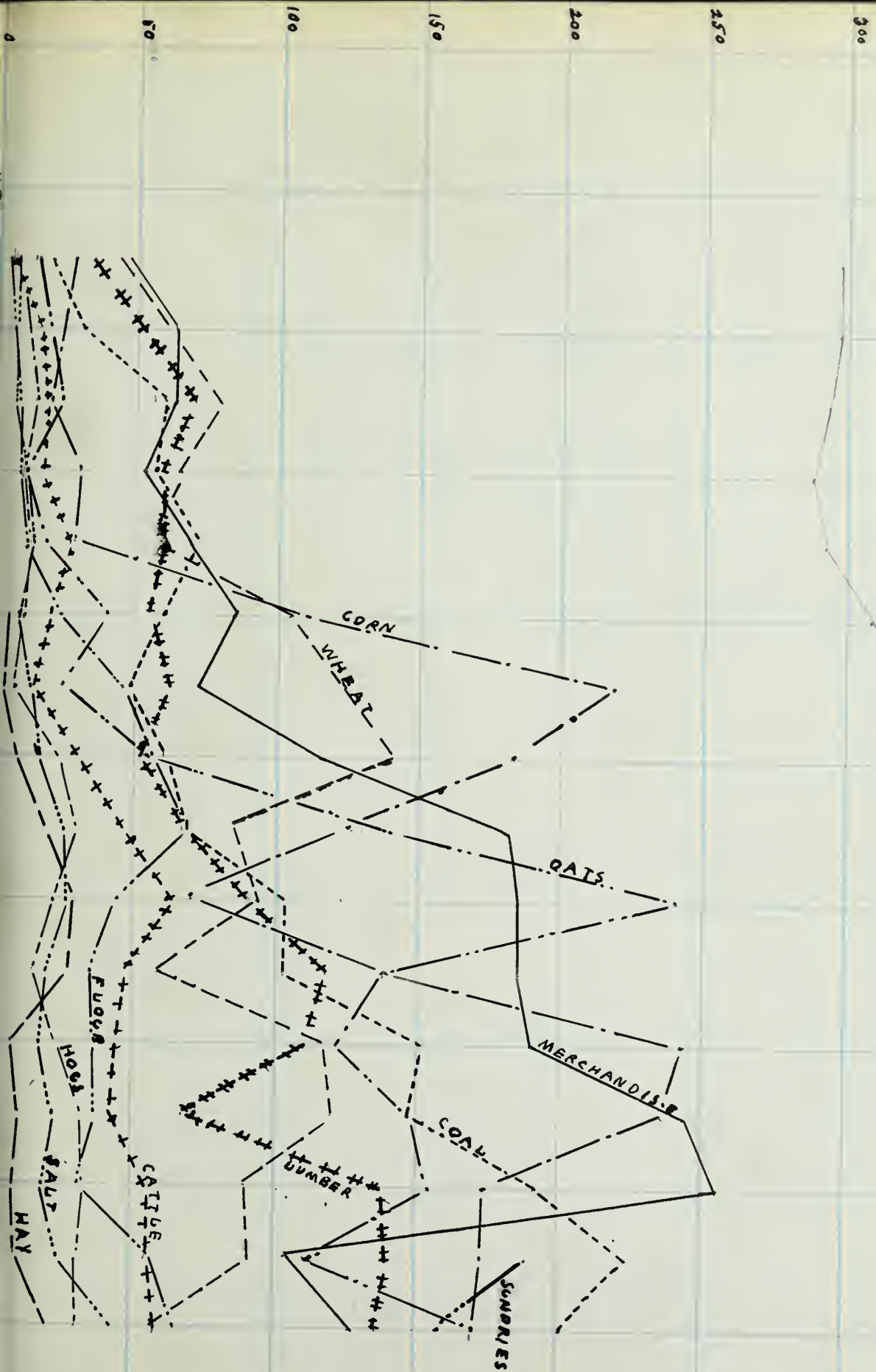
PROPORTION OF GRAIN, LIVE STOCK, LUMBER, COAL
 AND MERCHANDISE TONNAGE TO WHOLE TRAFFIC, 1850-70

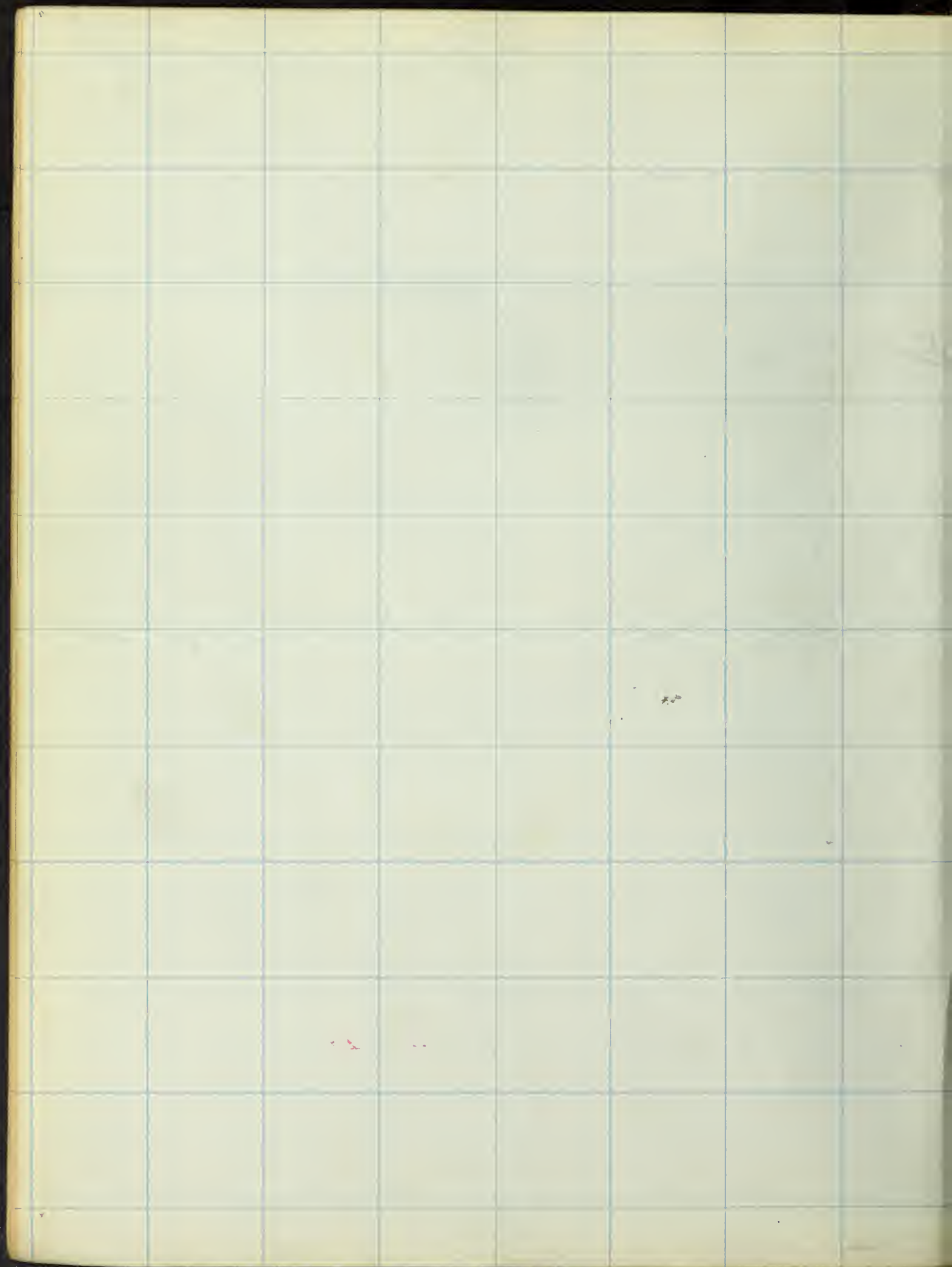
	GRAIN	LIVE STOCK	LUMBER	COAL	MERCHANDISE	TOTAL
1857	29%	6.8%	24.2%	13.4%	14.6%	100.0%
1858	30.8	6.3	23.6	15.1	14.6	100.0
1859	23.7	4.5	19.4	17.1	16.2	100.0
1860	44.0	4.2	15.3	10.3	14.5	100.0
1861	53.2	4.5	11.4	6.8	10.0	100.0
1862	48.2	5.8	9.9	7.5	13.8	100.0
1863	41.5	6.9	11.9	72.	19.0	
1864	39.8	6.9	13.4	10.0	18.0	100.0
1865	38.8	4.8	17.3	10.0	18.0	100.
1866	43.1	5.2	14.3	13.1	16.5	100
1867	40.9	5.1	7.9	11.3	18.2	100.0
1868	35.3	6.3	16.4	15.2	20.3	100.0
1869	29.3	6.1	15.7	16.8	21.9	100.0
1870	41.3	5.9	15.2	14.9	21.0	100.0
	30.6					

4000
TONS

XI Page 153

TONS OF FREIGHT CARRIED IN ILLINOIS





this system through trains were run from St. Louis to Chicago, via Mattoon, and to Cairo, via Du Quoin. The line from Chicago to St. Louis handled a large share of the freight between those two cities and on the whole was very important. At the same time, the tonnage routed over this connection was only a small fraction of the total traffic of the system.

While local freight, in the technical meaning of the word, was much more important than through business, local traffic, in the common usage, referring to freight handled between local stations, was unimportant. Grain, lumber, merchandise, and live stock, the leading articles forwarded or received, originated at or were destined to the

GREAT BULK OF THE
TRAFFIC PASSES
THROUGH CHICAGO,
DUNLEITH OR CAIRO

three main termini of the road; Chicago, Dunleith or Dubuque, and Cairo. Shipments between local stations were confined to coal, certain kinds of

merchandise, and a few miscellaneous goods. Thus, in 1867, just before the Iowa lines were leased, 50.7% of all the freight received came to Chicago, Cairo, and Dunleith and 29.8% of that forwarded originated there.¹ Only a small proportion of the traffic from Chicago or Cairo was sent to the other of these two places and the sum of the freight received and forwarded there, or slightly over seventy per cent, represents the proportion going through the large terminals. Thus, at the outside, less than thirty per cent of all the traffic on the road was carried between local stations.²

¹ ~~744~~ Annual Report, Illinois Central Railroad, 1867.

² Ibid. That is, only a small proportion of the freight forwarded from Chicago was sent to Cairo, and vice versa. (In the earlier reports the railroad gives data proving the correctness of this statement) and the sum of the forwarded and received items in the two places represents the non-local tonnage. Allowing for inter change business and through traffic the amount of business between local stations could not have exceeded twenty per cent of the total.

As indicated in the previous pages the bulk of the traffic was ~~mainly~~ seasonal, that is, most of the shipments were made in a few months of the year. In the fall grain was shipped north to Chicago and during the remainder of the year this kind of traffic was not of great importance. The same condition existed in the handling of coal, live stock, and, to a less extent, lumber. Moreover, the preponderance of

DESPITE PREPONDER- agricultural shipments over merchandise and lum-
ANCE OF SEASONAL ber meant that the in-bound tonnage at Chicago .
AND AGRICULTURAL PRODUCTS TRAFFIC and Cairo greatly exceeded the outbound.¹⁰⁴ Fur-
FAIRLY REGULAR theremore, except during the Civil War period, the bulk of the agricul-
tural shipments were forwarded to Chicago, while the receipts at Cairo
were slight.¹⁰⁵ However, the northbound and southbound traffic during
most of the years between 1858 and 1870 were evenly balanced, there
being 867,900,000 ton miles of southbound freight as against 762,900,000
ton miles northbound.¹⁰⁶

¹⁰⁴ Annual Report, Illinois Central, 1855 to 1870.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

TONNAGE HANDLED AT CHICAGO AND CAIRO, 1857 TO 1870.

	RECEIVED		FORWARDED		
	CHICAGO	CAIRO	CHICAGO	CAIRO	
1857	17.0 ⁷	4.9	17.0	2.4	2.4
1858	28.0	7.3	19.1	10.3	3.5
1859	30.8	9.5	23.2	11.5	5.3
1860	37.3	16.3	18.3	5.1	3.1
1861	44.5	15.5	12.6		2.2
1862	41.4	8.7	13.5		2.0
1863	30.3	12.2	22.2		1.5
1864	23.2	18.7	25.1		1.1
1865	26.8	14.8	27.6		1.0
1866	29.8	12.8	21.6		.9
1867	32.0	9.5	24.4		1.1
1868	48.6	3.6	27.4		2.7
1869	47.7	5.3			2.3
1870	42.5	11.8			3.3

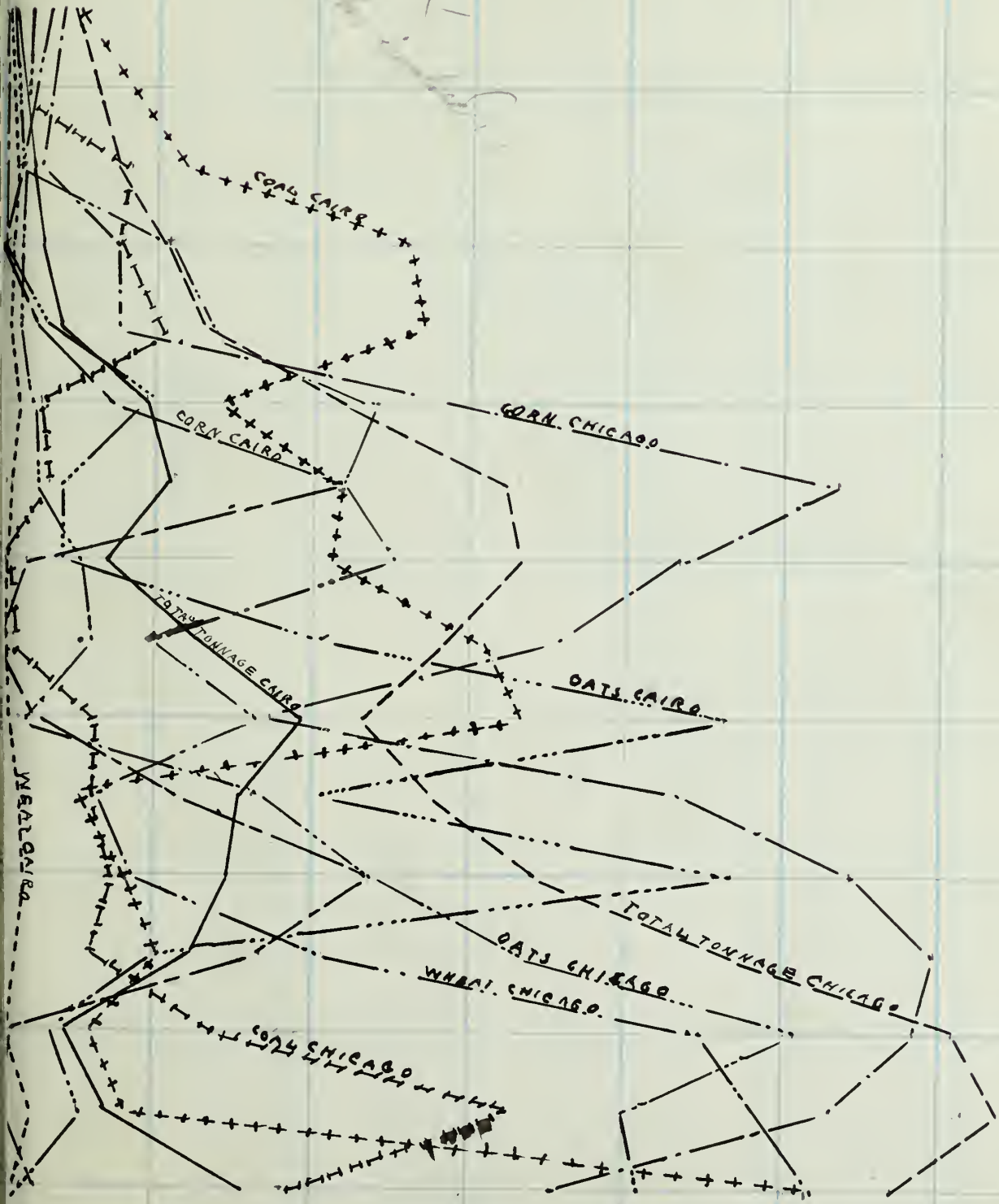
TONS
ALL COAL
MMP-
TIES
700000

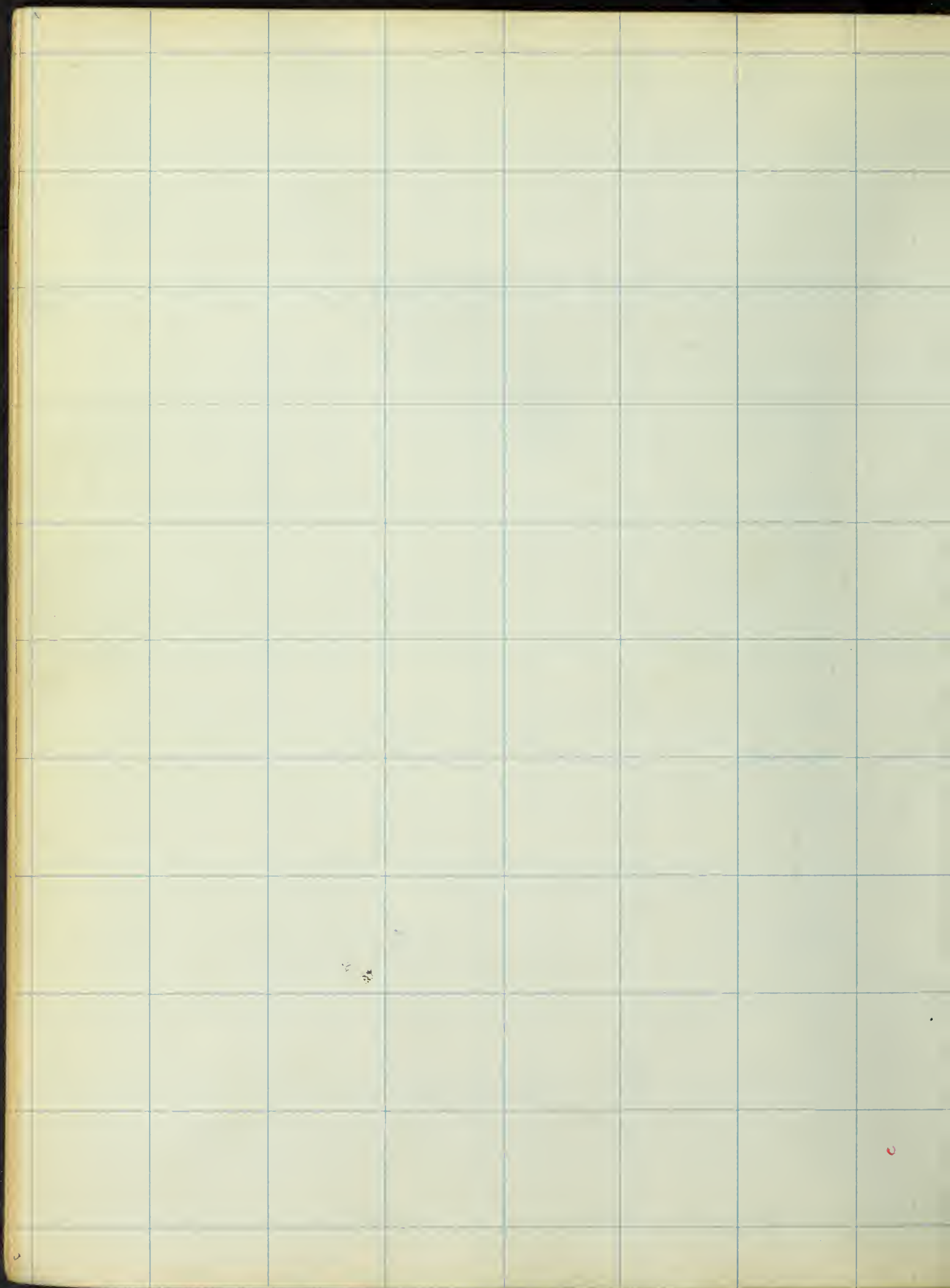
COMMODITIES RECEIVED AT CHICAGO AND CAIRO

GRAIN
BUSHELS
1000000

600000 200000
500000 250000
400000 300000
300000 150000
200000 100000
100000 50000

6000000
5000000
4000000
3000000
2000000
1000000





The large increase in traffic which commenced with 1860 was brought about by the general development of the country, and not by any marked reduction of rates. The tariffs on through freight were considerably lower in 1870, but, as stated ^{above} on page 118, local rates were higher in the latter year than when the railroad was put in operation. The com-

HIGHER RAILWAY RATES
IN 1870 THAN IN 1860
JUSTIFIED BY IN-
CREASED COST OF CAR-
RIAGE OF FREIGHT

pany was not responsible for this increase. In-
stead it effected economies in operation and
made savings in other directions which prevented

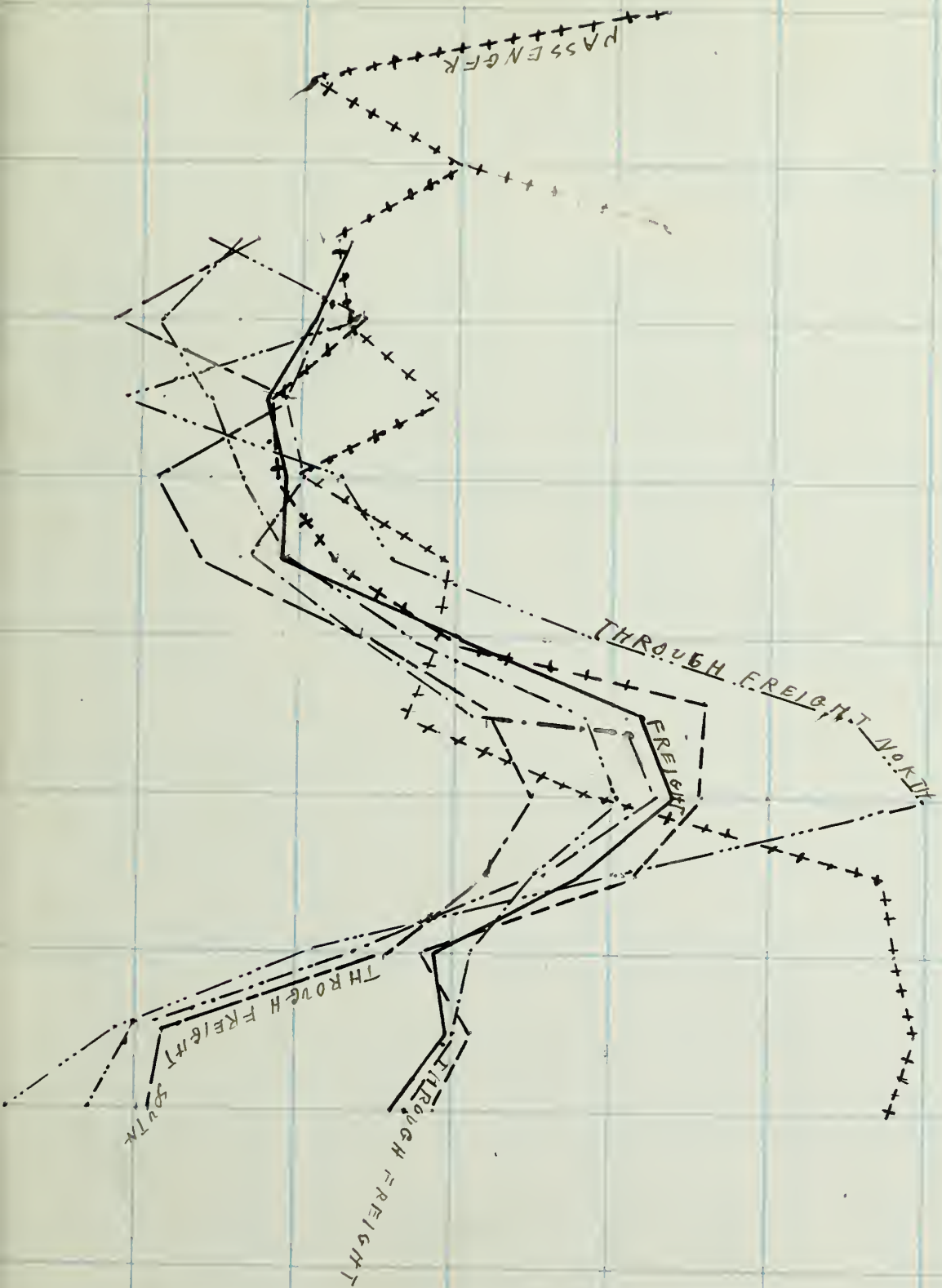
a much higher increase. ^{has been held by the courts} It is a legal axiom that railroad corporations are entitled to fix rates which, in the aggregate, will give a reasonable return on the cash invested in the property. ¹⁰⁷ Judging the charges of the Illinois Central from 1856 to 1870 from this standpoint it must be admitted that the average was no higher than the condition of the corporation's business warranted. From 1858 to 1870 inclusive, the net receipts averaged less than seven per cent on the actual cost of the railroad. ¹ During this time the usual returns on capital invested in similar enterprises was much larger, and the customary rate of in-
terest on farm mortgages was ten per cent ^{or} over. Omitting for the moment the influence of reduced charges in increasing traffic, it is evident that any reduction in rates would have reduced the net revenue of the railroad below what the owners had a reasonable right to demand. In the period under discussion it was not the operating side, but rather the land grant of the Illinois Central which made it a profitable investment. The mere earnings from traffic would never have justified

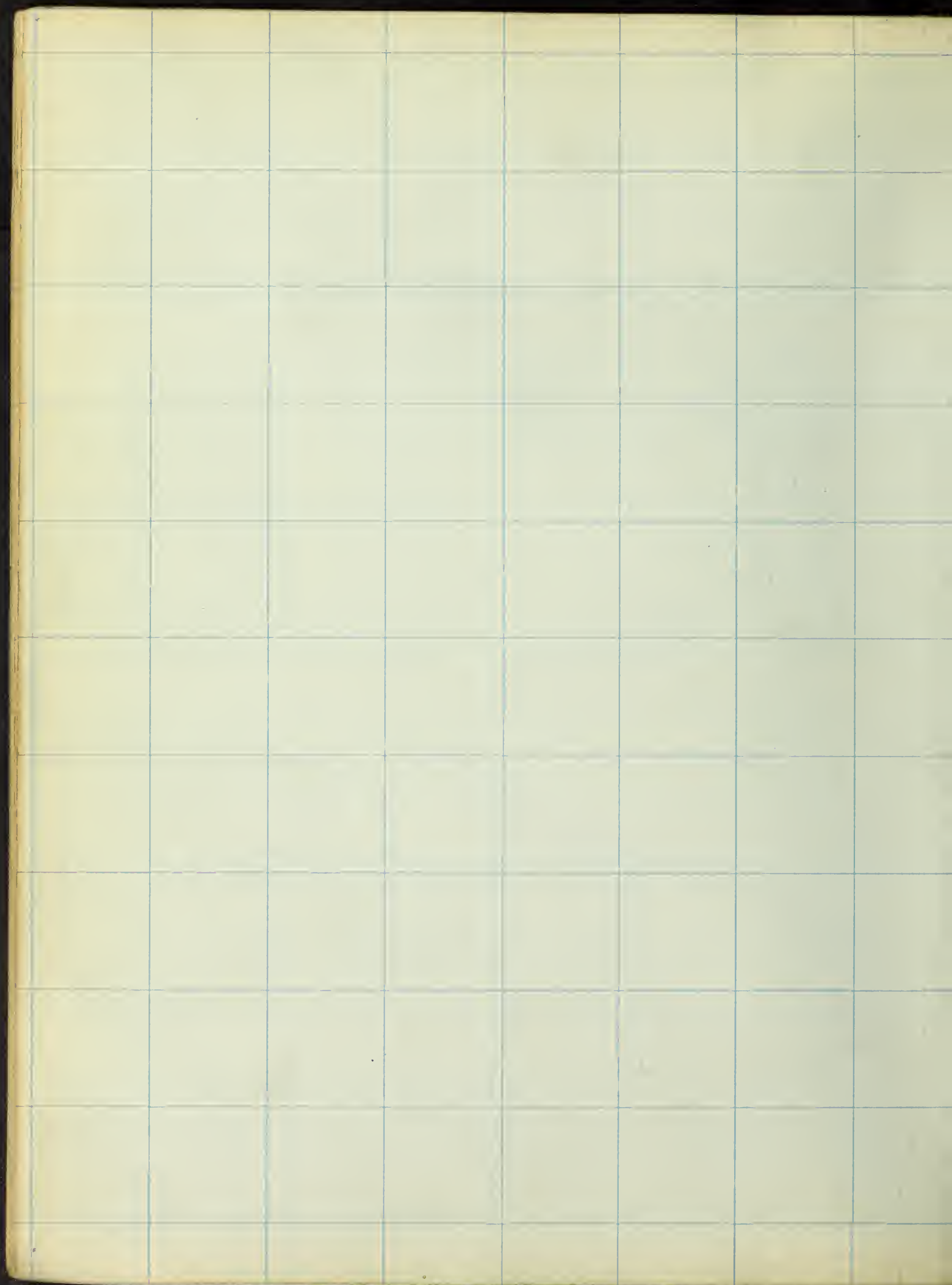
1 Cf. Chapter vi, chart

*107 This statement, and the discussion following, does not mean that railway rates can be based on a division of the expense of operation and interest on the investment according to tonnage handled or some similar arrangement, but merely that the investors in a railroad legally cannot have their rates reduced to a point where the property does not earn a reasonable return on the cash investe

XIII
Page 156

RECEIPTS PER TON MILE
RECEIPTS PER PASSENGER MILE





the construction of the road, and had the company been forced to depend on the operating receipts alone, the road would have ~~been forced~~^{gone} into the hands of a receiver before it was finished.

Furthermore, the rates seem to have been as low as was necessary to move the traffic. Lower charges on certain articles such as coal and possibly lumber might have increased the tonnage turned over to the railroad, but it is almost certain that a reduction on the tariffs for grain and live stock would not have attracted a much larger traffic. As

CHARGES ON THE
ILLINOIS CENTRAL
LOW ENOUGH TO
MOVE THE BUSINESS
NEAR THE ROAD

it was, the territory immediately adjacent to the Illinois Central increased its production of agricultural products at a much faster rate than the

state as a whole and it is difficult to see how the country could have grown much faster than it did. In the few years immediately after the war, conditions were somewhat different, but the statements made above still hold good for that period.

Thus, it is safe to say that the Illinois Central Railroad, so far as freight traffic was concerned, fulfilled the object for which it was built. Compared with the results accomplished by other railroads in the

ILLINOIS CENTRAL
DEVELOPED ITS
TERRITORY FROM
1856-1870 AS MUCH
AS COULD REASON-
ABLY HAVE BEEN
EXPECTED

central West, the achievements of the Illinois Central were as satisfactory as could reasonably have been demanded. The territory tributary to it made gigantic strides in agriculture, stock raising,

mining, and manufacturing. The country was well settled and the population, as a whole, were prosperous and contented. *
108!

These remarks do not apply to the years after 1868. After the war there were important changes in economic conditions in the central west. It became less and less profitable for the farmers to ship grain and the agriculture communities suffered severely, as This dissatisfaction led to the Granger agitation of the early Seventies. However, these influences had just begun to affect central Illinois and the results were not sufficient to change the state made in the text

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the eleventh is the fact that the
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the fifteenth is the fact that the

the sixteenth is the fact that the
the seventeenth is the fact that the
the eighteenth is the fact that the

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the twenty-third is the fact that the
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the twenty-fifth is the fact that the
the twenty-sixth is the fact that the
the twenty-seventh is the fact that the

the twenty-eighth is the fact that the
the twenty-ninth is the fact that the
the thirtieth is the fact that the

In the first few years in which the railroad was in operation the passenger business was of more importance than the transportation of freight. Before the war there was a large immigration into all parts of Illinois and a large proportion of these settlers used the Illinois

PASSENGER TRAFFIC
OF GREATER RELATIVE
IMPORTANCE IN 1850-
1870 THAN AT THE
PRESENT TIME

Central railroad. Other reasons induced a large passenger traffic and during 1856 and 1857 there was a larger number of passengers carried on the

railroad than in the years immediately following the war. The Civil War also had an important influence on travel over the railroad through the transportation of troops and the movement of persons to and from the armies south of Cairo. With the removal of the temporary stimuli to passenger traffic this part of the railroad's business became of less relative importance than in the period from 1855 to 1865.¹⁰⁹

The large traffic during the construction of the road and the Civil War was accompanied by extremely low rates. In order to induce settlers to come to Illinois and to develop the resources of the state the tariffs from 1856 to 1860 were very low. In 1857, the year of greatest travel, the average rate per passenger was only two cents a

PASSENGER RATES
LOW BEFORE THE
CIVIL WAR AND
HIGH FROM 1865
TO 1870

mile. Local tariffs were placed at four cents a mile, but most of the people using the road traveled for much less, and the charges for immigrant and

excursion traffic were considerably below the average. During the war large numbers of troops were carried at approximately half rates and this made the charges appear lower than they really were. After 1865 conditions were normal and the local fare of four cents a mile seems to have been the universal charge.

The great bulk of the passenger business, as of the freight, was local, but the proportion of through to local was much greater, as the number of passenger connections was larger than the number of freight connections. In 1860 fourteen railroads, besides those at Chicago, connected the Illinois Central with points east or west, and this num-

A NUMBER OF IM-PORTANT PASSENGER CONNECTIONS ber had increased to twenty ten years later.¹ The most valuable of these connections were the eastern lines at Chicago; the Toledo, Peoria, and Western at El Paso and Gilman; the Toledo, Wabash, and Western at Decatur and Tolono; the St. Louis, Vandalia and Terre Haute and *the Terre Haute and* Indianapolis at Vandalia and Effingham; the Chicago and Northwestern at Freeport; the Chicago, Burlington, and Quincy at Mendota; and the Ohio and Mississippi at Odin and Sanlova.

Taking the through passenger business as a whole the Illinois Central received about as many persons from other lines as it turned over to them, and the business was quite profitable. ¹⁸⁶⁰

¹⁸⁶⁰ Annual Reports, Illinois Central Railroad, 1855-~~to~~ 1870. The number of persons received from and delivered to each of the connections of the railroad is given in the annual reports. the summarized total are as follows:--

	1860	1870
Received	66,127	95,046
Delivered	73,686	102,286
Passengers		
Chicago-Cairo	4,962	15,199
Cairo-Chicago	7,620	6,959
Cairo-Punleith	222	121
Punleith-Cairo	218	159
Local Tickets	\$420,922	\$958,466
Conductor's Collections	87,477	143,519
Coupons over other		
E.R. I.C. proportion	47,121	80,978

(Annual Reports, Illinois Central Railroad, 1860, 1870).

Although the Illinois Central Railroad was built to fit into economic conditions in the upper Mississippi Valley in which the important lines of trade ~~was~~ ^{were} north and south, not east and west, it adapted itself, in the years from 1856 to 1870, to an east and west movement of western produce. Had the original plans of its promoters been carried out ^{to} in their full extent, the Illinois Central would, probably, have built up the territory dependent on it to an even greater extent than it did. At the same time the profits to its owners and promoters would have been greater. As it was, economic conditions in the central West and upper Mississippi Valley were such that the peculiar location of the railroad did not interfere with its usefulness. The Illinois Central was more influential than some of the distinctly east and west roads, such as the Northwestern or Rock Island, in building up the commercial interests of Chicago. Thus, the traffic history of this railroad from 1856 to 1870 presents the curious instance of a road built to develop one line of commerce, in the particular case, trade along north and south lines, actually doing more than any other company to build up trade on what was regarded as a competitive route.

ILLINOIS CENTRAL
ABLE TO ADAPT IT-
SELF TO EAST AND
WEST MOVEMENT OF
WESTERN PRODUCE

VI
CHAPTER II

FINANCES OF CONSTRUCTION AND OPERATION, 1851-1870.

As already indicated, financial difficulties connected with building a railroad through the center of Illinois prevented its construction before 1850. Three successive private companies and the state itself failed to secure the financial support necessary to complete the enterprise and it must have been with many misgivings that Robert Schuyler and his associates assumed responsibility for this previously illfated project.

Before 1851, the fiscal operations connected with the road were neglected. As far as can be found from the records of the Cairo City and Canal Company and of the state of Illinois, no definite estimates of cost of construction were ever made. In the Internal Improvement Act of 1837 a gross appropriation of \$3,500,000, only \$10,000 per mile, was made, and the Cairo companies evidently regarded this sum as sufficient.¹ Thus, one of the first duties of the promoters of the new

company was to secure an approximate statement of the cost of the railroad. To make a regular survey was too expensive, and, as a substitute, Mr. Rantoul, late in 1850, through certain friends in the East, secured the cost of the Alton and Sangamon

¹ Laws of Illinois, Session 1836-1837, p. 121; Cf. Chapter ii; also records of the various Cairo companies in the office of the Cairo Title and Trust Company, Cairo, Ill.

THE HISTORY OF THE UNITED STATES

The history of the United States is a story of the growth of a great nation from a small colony of English settlers. The first settlers came to the New World in search of a better life, and they found it. They built a new society, one of freedom and opportunity, and they made it a reality. The story of the United States is a story of the triumph of the human spirit over adversity, and it is a story that inspires us to this day.

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THE HISTORY OF THE UNITED STATES

and seven leading eastern railroads. Upon these figures he prepared a preliminary estimate, which became the basis of the fiscal program of the memorialists. According to this statement, the total cost would vary from \$14,950,000 (\$23,000 per mile) to \$32,078,843 (\$41,681,81 per mile), depending upon length of line and character of construction.

In financing the enterprise the promoters had three methods open to them. The one most common at that time, especially in the East and South, was to sell sufficient stock to provide for most of the expenditures, this being supplemented, if necessary, by the issue of mortgage or income bonds. The second and less conservative method, nevertheless rapidly growing in favor, was to build the railroad by selling mortgage bonds, usually at a heavy sacrifice, and distribute the stock as a bonus to the promoters. With the Illinois Central there was a third possibility. The company had a federal land grant of from two and a half to three million acres of farming land and this allowed the company to pursue a policy entirely different from what would otherwise have been necessary.

To the Eastern capitalists the land grant was considered the most valuable part of the undertaking, and a few years later Mr. Richard Cobden expressed ^{of these men} their opinion very clearly when he said "It is not as a railroad investment that I regard so favorably this undertaking, but its value in my eyes depends on the landed estate...." However, the value of even three million acres of rich prairie land, hundreds of miles from good transportation, was not great.

Illinois State Journal (Springfield), Feb. 12, 1851. The estimate was forwarded to Representative U.F. Lender. See page 40. Cf. Chapter Thompson, Cost and Capitalization of American Railroad Mss. letter from Richard Cobden to Sir Joshua Valmsley, written from Midhurst, England, 18 September, 1857. Original in office of the President, Illinois Central R.R.

and the other two, the first and second, are the same. The third is the same as the first and second, but the fourth is different. The fifth is the same as the first and second, but the sixth is different. The seventh is the same as the first and second, but the eighth is different. The ninth is the same as the first and second, but the tenth is different. The eleventh is the same as the first and second, but the twelfth is different. The thirteenth is the same as the first and second, but the fourteenth is different. The fifteenth is the same as the first and second, but the sixteenth is different. The seventeenth is the same as the first and second, but the eighteenth is different. The nineteenth is the same as the first and second, but the twentieth is different. The twenty-first is the same as the first and second, but the twenty-second is different. The twenty-third is the same as the first and second, but the twenty-fourth is different. The twenty-fifth is the same as the first and second, but the twenty-sixth is different. The twenty-seventh is the same as the first and second, but the twenty-eighth is different. The twenty-ninth is the same as the first and second, but the thirtieth is different. The thirty-first is the same as the first and second, but the thirty-second is different. The thirty-third is the same as the first and second, but the thirty-fourth is different. The thirty-fifth is the same as the first and second, but the thirty-sixth is different. The thirty-seventh is the same as the first and second, but the thirty-eighth is different. The thirty-ninth is the same as the first and second, but the fortieth is different. The forty-first is the same as the first and second, but the forty-second is different. The forty-third is the same as the first and second, but the forty-fourth is different. The forty-fifth is the same as the first and second, but the forty-sixth is different. The forty-seventh is the same as the first and second, but the forty-eighth is different. The forty-ninth is the same as the first and second, but the fiftieth is different. The fifty-first is the same as the first and second, but the fifty-second is different. The fifty-third is the same as the first and second, but the fifty-fourth is different. The fifty-fifth is the same as the first and second, but the fifty-sixth is different. The fifty-seventh is the same as the first and second, but the fifty-eighth is different. The fifty-ninth is the same as the first and second, but the sixtieth is different. The sixty-first is the same as the first and second, but the sixty-second is different. The sixty-third is the same as the first and second, but the sixty-fourth is different. The sixty-fifth is the same as the first and second, but the sixty-sixth is different. The sixty-seventh is the same as the first and second, but the sixty-eighth is different. The sixty-ninth is the same as the first and second, but the seventieth is different. The seventy-first is the same as the first and second, but the seventy-second is different. The seventy-third is the same as the first and second, but the seventy-fourth is different. The seventy-fifth is the same as the first and second, but the seventy-sixth is different. The seventy-seventh is the same as the first and second, but the seventy-eighth is different. The seventy-ninth is the same as the first and second, but the eightieth is different. The eighty-first is the same as the first and second, but the eighty-second is different. The eighty-third is the same as the first and second, but the eighty-fourth is different. The eighty-fifth is the same as the first and second, but the eighty-sixth is different. The eighty-seventh is the same as the first and second, but the eighty-eighth is different. The eighty-ninth is the same as the first and second, but the ninetieth is different. The ninety-first is the same as the first and second, but the ninety-second is different. The ninety-third is the same as the first and second, but the ninety-fourth is different. The ninety-fifth is the same as the first and second, but the ninety-sixth is different. The ninety-seventh is the same as the first and second, but the ninety-eighth is different. The ninety-ninth is the same as the first and second, but the hundredth is different.

The first and second are the same. The third and fourth are the same. The fifth and sixth are the same. The seventh and eighth are the same. The ninth and tenth are the same. The eleventh and twelfth are the same. The thirteenth and fourteenth are the same. The fifteenth and sixteenth are the same. The seventeenth and eighteenth are the same. The nineteenth and twentieth are the same. The twenty-first and twenty-second are the same. The twenty-third and twenty-fourth are the same. The twenty-fifth and twenty-sixth are the same. The twenty-seventh and twenty-eighth are the same. The twenty-ninth and thirtieth are the same. The thirty-first and thirty-second are the same. The thirty-third and thirty-fourth are the same. The thirty-fifth and thirty-sixth are the same. The thirty-seventh and thirty-eighth are the same. The thirty-ninth and fortieth are the same. The forty-first and forty-second are the same. The forty-third and forty-fourth are the same. The forty-fifth and forty-sixth are the same. The forty-seventh and forty-eighth are the same. The forty-ninth and fiftieth are the same. The fifty-first and fifty-second are the same. The fifty-third and fifty-fourth are the same. The fifty-fifth and fifty-sixth are the same. The fifty-seventh and fifty-eighth are the same. The fifty-ninth and sixtieth are the same. The sixty-first and sixty-second are the same. The sixty-third and sixty-fourth are the same. The sixty-fifth and sixty-sixth are the same. The sixty-seventh and sixty-eighth are the same. The sixty-ninth and seventieth are the same. The seventy-first and seventy-second are the same. The seventy-third and seventy-fourth are the same. The seventy-fifth and seventy-sixth are the same. The seventy-seventh and seventy-eighth are the same. The seventy-ninth and eightieth are the same. The eighty-first and eighty-second are the same. The eighty-third and eighty-fourth are the same. The eighty-fifth and eighty-sixth are the same. The eighty-seventh and eighty-eighth are the same. The eighty-ninth and ninetieth are the same. The ninety-first and ninety-second are the same. The ninety-third and ninety-fourth are the same. The ninety-fifth and ninety-sixth are the same. The ninety-seventh and ninety-eighth are the same. The ninety-ninth and hundredth are the same.

Between every section of railroad land the federal government held another section, equally fertile, which it was willing to sell as low as two dollars and a half an acre. Six miles back from the tracks lay a vast, practically unoccupied, stretch of government land, the maximum price for which was a dollar and a quarter an acre. At immediate sale, this enormous domain belonging to the Central would not yield over eight to ten millions of dollars, less than half the total cost of the railroad, and to supply the remaining millions themselves was not an inviting prospect to the promoters. To avoid this difficulty the directors adopted a plan by which the land grant could be held until a large return would be received and yet the land remained the basis of all fiscal operations. This policy was worked out in detail in the report made by President Schuyler to the Board on April 23rd, 1851, the main features of which are as follows.

The land grant was to be the basis of all financial operations, but to secure money for immediate expenditures, mortgage bonds would be issued. (1) All the railroad track, right of way, stations, etc., and two million acres of land, were to be mortgaged to the extent of \$21,400,000, which was then considered the approximate cost of construction. These two million acres would be held for ten or fifteen years, and then sold at such prices that the cash realized would equal the total amount of bonds issued. The entire issue would be retired not later than the year 1875. (2) Two hundred and fifty thousand acres were set

The lands were divided as follows:--

400,000	acres	Inferior Agricultural Land	at \$64	acre	\$2,400,000
1,200,000	"	"	"	10	" 12,000,000
300,000	"	Superior	"	15	" 4,500,000
100,000	"	Especially Valuable	"	25	" 2,500,000
<u>TOTAL</u>					<u>\$21,400,000</u>

apart as a guarantee of interest on the mortgage bonds and could be sold at the discretion of the directors. (5) The remainder of the land amounting to something between one quarter and three quarters of a million acres, according to the exact route selected, was to be free land, that is available for any contingency. (4) The stock, equal in amount to the cash expenditures, was to be distributed as a bonus to purchasers of bonds, promoters, directors, or sold to outside parties, a moderate payment of \$5 to \$10 per share being made to meet incidental and extraordinary expenses.⁶⁻¹

Thus, in return for an investment of a million or two dollars, the stockholders were to receive, free of debt by 1875, a first class trunk line, seven hundred miles in length and five or six hundred thousand acres of rich Illinois prairie land, worth altogether eighteen to twenty million dollars. It was a businesslike proposition to secure to the promoters of the Illinois Central the greatest profits ever realized to that time by a group of American capitalists. Had it not been for a serious underestimate of the cost of construction by Colonel Mason; the panic of 1857; and the Civil War----events entirely unforeseen in 1851---- these prospects would undoubtedly have been realized.

President Schuyler's plan of April 23rd was based on Rantoul's statement, and definite action was necessarily deferred until Colonel Mason submitted his preliminary estimate in September, 1851. According to his report, the railroad would be 699 miles in length and for that distance the cost of roadway, buildings, equipment, and incidentals was placed at \$16,537,212, or \$23,600 per

PRELIMINARY
ENGINEERING
ESTIMATE

Letter of Robert Schuyler to Board of Directors, 2 April 23, 1851, in Documents Relating to the Organization of the Illinois Central Railroad; cf. mortgage of September 13, 1851, in same pamphlet.

mile, as against \$21,400,000 allowed by Kantcul.⁷ The schedules were prepared with great care and represented a reliable estimate of the cost according to prices current in the summer of 1851. At the same time, either through errors in the surveys, wrong estimates of bridge work, grading,^{and} buildings, etc., or else through a desire to present to the outside world as favorable a showing as possible, the report greatly underestimated the cost of construction. The seriousness of this error is shown by a difference of \$10,030,805.61 between the estimate of September, 1851, and the actual cost to December 31st, 1857.⁸ For an engineer of Mason's standing this difference of 60.5% was inexcusable, and many subsequent financial difficulties were caused by this mistake.

With the estimated cost of construction decreased from \$21,400,000 to \$16,500,000, the directors deemed it wise to decrease the amount of money to be borrowed to \$17,000,000. Accordingly, on the thirteenth of September, 1851, the Illinois Central Railroad Company mortgaged its right of way, track, buildings, etc., and two million acres of land, but not the rolling stock or remaining five hundred thousand acres of land, as security for \$13,000,000 ^{seven} ~~six~~ per cent, and \$4,000,000 six per cent, coupon bonds, due in 1875, ^{and with} interest payable semi-annually in gold. The main features of the mortgage were the same as outlined in the President's report of April 23rd, 1851, with the exception of the size of the mortgage.⁹ Three trustees were appointed to handle matters relating to the mortgage, and ^{two} ~~one~~ of these were appointed by the Governor of Illinois and the third by the company.¹⁰

Report of President Schuyler to Board of Directors, Sept. 12, 1851.
 Construction expenditures to Dec. 31, 1857, \$26,568,017.61
 Estimate of September 12, 1851, 16,537,212.00
 DIFFERENCE 10,030,805.61
 Mortgage of September 13, 1851. Documents Relating to the Organization of the Illinois Central Railroad.
 John C. Moore and Samuel C. Lockwood were appointed by Governor French, and Morris Ketchum represented the railroad.

In the charter the amount of capital stock was fixed at one million dollars and could be "increased.....to any sum not exceeding the entire amount expended on account of said road."¹¹ No restriction, other than the above, was placed on the issuing of stock, and the directors had entire power to fix the terms of sale. Accordingly, in CAPITAL line with the letter, and perhaps with the spirit, of the STOCK ACCOUNT charter, the directors determined to keep the stock at an amount equal to the total cost of the railroad, irrespective of the cash paid in by the shareholders. Originally this amount was fixed at \$17,000,000, but later was increased to \$25,500,000.¹² Under the President's plan, the bonds, and ultimately the land grant, were intended to provide funds for construction, and the stock was to be assessed only a nominal amount, say \$10 to \$20 per share.¹³

The charter provided that \$200,000 should be deposited with the state treasurer as a guarantee of good faith and that \$20 per share should be paid on the first one million of stock. Immediately after the company was organized one million dollars was subscribed by the FIRST AND SECOND corporators and \$50,000, or \$5 per share, paid in to ISSUES OF STOCK: GUARANTEE FUND provide for the various expenses of organization.¹⁴ Shortly afterwards this first assessment was increased to \$20 per share and another million dollars subscribed, A payment of \$10 per share ^{was} being asked on the second issue. This gave a total of \$300,000 received from the first two issues of stock (\$200,000 from the first issue and \$100,000 from the second). As a guarantee that the road would be built

¹¹ Act of February 10th, 1851 (Illinois Central Charter), section 4.
¹² Chicago Daily Democrat, August 17, 1853; also Annual Report, Illinois Central Railroad, 1855, 1870.
¹³ Report of President Schuyler, September 12 and April 23rd, 1851.
¹⁴ Chicago Daily Democrat, August 17th, 1853.

two hundred thousand dollars was deposited with the banking firm of Ketchum, Rogers, and Pement and with Mr. John Griswold, of New York, subject to the order of the state of Illinois.¹⁵

The receipts from the sale of the first two million of stock paid the expenses of organization, but by winter it became necessary to secure adequate funds for construction, and, in accordance with President Schuyler's plan, mortgage bonds were issued. In 1851, after several years of depression, the country entered upon a period of great financial prosperity during which there was a heavy demand in the United States and Europe for good investment securities and the directors of the Illinois Central were able to take immediate advantage of the favorable financial situation.

According to newspaper reports, one banking firm had already agreed to take the entire \$17,000,000 at par or over, when a slight stock market flurry occurred, preventing completion of the arrangements.¹⁶ Probably the real reason was that investors hesitated to advance such a large amount before a shovelful of earth had been removed.¹⁷ This made it necessary to reduce the issue to four or five millions, and numerous offers were made for the smaller amount, including, it is said, a very flattering proposition from the Rothschilds.¹⁸ The success of the smaller loan was immediate.

Messrs. ---

¹⁵ At this time Mr. Moore was severely criticized for depositing the money with men connected with the Illinois Central, but there is no ground for believing that he was influenced by other than business motives. Mr. Griswold, and Ketchum, Rogers, and Pement paid the state interest at five per cent and gave as security additional certificates of deposit more than covering the money borrowed. See letter of John Moore, dated Springfield, January 24, 1852, quoted in Chicago Daily Democrat, February 6th, 1852.
¹⁶ Chicago Daily Democrat, November 5, 1851.
¹⁷ See editorials in American Railway Journal, December, 1851. Mr. Poor was editor of the Journal and my conclusions are based very largely on his editorials.
¹⁸ Chicago Daily Democrat, Nov. 5, 1851; *ibid.*, December 15, 1851.

By December, 1851, bankers in New York, Boston, and Philadelphia had promised to take \$4,000,000 seven per cent bonds at par and in February, 1852, the negotiations were completed.¹⁹ The sale at once placed the credit of the Illinois Central on a sound basis, and showed that it could borrow money on as good terms as well established roads like the Hudson River and the New York and New Haven railroads. It also enabled the company to pay cash for all construction work.²⁰ The success of the undertaking was thus assured.

Even before the mortgage had been signed, plans were made to place part of the loan in Great Britain, and in August, 1851, ~~Ex~~-Secretary of the Treasury Robert J. Walker and Vice-President David A. Neal were appointed as agents to visit Europe. They reached London in November and before selling any bonds they spent several months disseminating information in regard to the Central; consulting bankers, brokers, and investors; and making arrangements with manufacturers of railroad materials.²¹ The results were entirely satisfactory. Before the formal announcement on June 12th, 1852, a large number of investors and manufacturers had promised to take bonds, and within a few weeks after the bids were asked for, the entire amount was disposed of at a small premium.²² The strength of the company's credit was illustrated in a striking way when a number of large rail makers took bonds rather than cash in payment of materials purchased. It was also emphasized by the fact that the whole loan of \$1,000,000 Sterling, or five millions of dollars, although most of it was bearing only six per cent interest---one per cent less than the New York issue---was

¹⁹ Chicago Daily Democrat, Feb. 15, 1852.

²⁰ Ibid., Feb. 16, 1852. ¹⁶

²¹ Ibid., Sept. 8, 1851.

²² Railway Times (editorial), June 12, 1852; *ibid.*, advertisement. Of the \$5,000,000, \$1,000,000 bore seven per cent interest, and the remainder, \$4,000,000, bore six per cent. Cf. page 169.

The first thing I noticed when I stepped out of the car was the cold. It was a sharp contrast to the warm blanket I had been sitting under. I looked up at the sky, which was a pale, hazy blue. The air was still, and the only sound I could hear was the distant hum of traffic. I took a deep breath, feeling the cold air fill my lungs. It was a strange sensation, but I knew it was necessary. I had to get used to this new environment, this new way of life. I had to learn to live with the cold, with the silence, with the solitude. I had to learn to love it, to embrace it, to make it my own. I had to learn to be a part of it, to be a part of this world, of this life, of this journey.

I had been told that the weather was the best. It was a perfect blend of the old and the new, of the traditional and the modern. It was a place where the past met the future, where the old ways of life were still being practiced, but with a modern twist. It was a place where the people were friendly, where the food was delicious, where the culture was rich and diverse. It was a place where I could find everything I needed, everything I wanted, everything I had ever dreamed of. It was a place where I could start a new life, where I could find my purpose, where I could find my place. It was a place where I could be who I really was, where I could be happy, where I could be free. It was a place where I could be a part of something bigger than myself, where I could be a part of something that would last forever.

I had been told that the people were the best. They were a mix of different cultures, different languages, different traditions. They were a mix of the old and the new, of the traditional and the modern. They were a mix of the best of all worlds, of the best of all people. They were a mix of the best of all things, of the best of all life. They were a mix of the best of all that was, of the best of all that was to come. They were a mix of the best of all that ever was, of the best of all that ever will be. They were a mix of the best of all that ever existed, of the best of all that ever will exist. They were a mix of the best of all that ever will be, of the best of all that ever will exist. They were a mix of the best of all that ever will be, of the best of all that ever will exist.

I had been told that the food was the best. It was a mix of different cuisines, different flavors, different textures. It was a mix of the old and the new, of the traditional and the modern. It was a mix of the best of all worlds, of the best of all people. It was a mix of the best of all things, of the best of all life. It was a mix of the best of all that was, of the best of all that was to come. It was a mix of the best of all that ever was, of the best of all that ever will be. It was a mix of the best of all that ever existed, of the best of all that ever will exist. It was a mix of the best of all that ever will be, of the best of all that ever will exist. It was a mix of the best of all that ever will be, of the best of all that ever will exist.

oversubscribed at a small premium.²⁴ However, the British purchasers were allowed to subscribe to five shares of stock for every \$1000 bond and as Illinois Central stock, subject to possible assessments of \$80 per share, was selling at or near par, many investors bought high grade bonds to secure such valuable stock.²⁵ Thus, by August 1st, 1852, \$9,000,000 of six and seven per cent bonds had been sold at par.²⁶ On the other hand, the shareholders had contributed only \$300,000.

From June, 1852, to June, 1853, there was a small increase in the amount of stocks and bonds outstanding. No new bond issues were sold, but a number of contractors and manufacturers agreed to take bonds instead of cash in settlement of contracts. Likewise, subscriptions from contractors and manufacturers, stock subscriptions by purchasers of six per cent bonds, and purchases by investors generally increased the amount of stock outstanding.²⁷ Furthermore, on June 15th, 1853, seven per cent bonds to the amount of three million dollars were disposed of at par, although it is probable that nearly all of this loan had been unofficially promised several months prior to that time.²⁸ Thus, by August 1st, 1853, 109,293 shares of stock had been subscribed. Payments from \$5 to \$20 per share were made, and the total amount received was \$746,465, while \$13,086,000 of bonds had been sold or contracted for, of which \$6,195,117.66 had been paid.²⁹ All of the bonds had been disposed of, at or above par, and, including differences in exchange and discount, there was a premium of \$84,014.27. Miscellaneous accounts, principally bills payable, brought

American Railway Journal, May 14, 1853; also official statement of the treasurer of the company, dated August 1st, 1853, quoted in Chicago Daily Democrat, August 17, 1853.
Railway Times, June 12, 1852; also miscellaneous editorials, advertisements, and notices during month of July, 1852.
Statement of treasurer, Chicago Daily Democrat, August 17, 1853.
Ibid., also Railway Times, June 12, 1852.
Ibid.
Ibid.

the total cash receipts to \$7,840,525.68. Construction and general office expenses, interest charges, and the cost of organization took \$6,558,216.45, leaving a nominal balance of \$1,382,309.23. After deducting current liabilities, however, this was reduced to \$370,232.45. In addition there were unpaid instalments and assessments of \$8,486,882.

This was a favorable report, and had the financial situation remained the same in 1854 as in 1852 and 1853 there would have been no danger from the small cash balance. However, these years had been times of tremendous expansion in all lines of business and the demand for new capital was so great that it was soon impossible to borrow on anything like reasonable terms. When ten per cent bonds of reputable companies such as the Ohio and Mississippi were selling at sixty or seventy, it was out of the question to dispose of six and seven per cent Illinois Central bonds at par. The money market was also affected by the outbreak of the Crimean war which created large additional demands for money, especially in England and prevented free investment in industrial and railroad securities. By the middle of October, 1853, the six per cent bonds, which only a few months before had been eagerly sought for at a premium, were selling for 95^{3/4}, and by the last of April a further drop of fifteen points had taken place.³²⁸ This rapid decline was accentuated by the actions of President Schuyler. He was president of the New York and New Haven railroad, as well as of the Illinois Central, and in the name of the former company he had fraudulently issued a million of stock, selling the same for the personal profit of himself and friends. The leading railroad magnate of his time and a prominent stock exchange broker, his

the
 30 Statement of treasurer, I.C.R.R., Chicago Daily Democrat, Aug. 17, 1853.
 31 Railway Times, October 24, 1853.
 32 Ibid., Feb. 4, 1854; (7) bonds sold at 81 1/2 to 81 3/4; ibid., July 22nd, 1854; Nov. 24, 1854.

defalcation had a disastrous influence on the stock market. A Wall Street panic commenced on the 24th of July, the day his embezzlement became known, and securities dropped rapidly in price.³³ The effect on the Illinois Central was especially damaging. Robert Schuyler, its president, was a fugitive in Canada and Gouverneur Morris, one of the leading directors, was a bankrupt. The stock declined over forty points in a few days and seven per cent bonds became a drug on the market at 65.³⁴ With its treasury depleted and payments on millions of dollars worth of construction work due within the year, the situation was critical.

Fortunately, at this time, Mr. W. H. Osborn, who, more than any other person connected with the road, had helped to place its finances on the substantial basis ~~they were~~^{of} to-day, assumed complete control of the financial affairs of the company. From August 1st, 1853, to December 31st, 1857, not quite four and a half years, a total of \$23,339,722.76 was expended on construction work and interest payments.³⁵ After deducting bills and accounts payable, the company, at the commencement of this period, had only \$370,252.45 in cash, leaving some twenty-three millions of dollars to be raised within this short period.³⁶ Against these expenditures, the company had potential assets to the extent of eight millions in the form of unpaid instalments on bonds already subscribed. However, a large proportion had been taken by contractors or manufacturers in payment of work or supplies, and when the bonds dropped below par they refused to accept anything but cash in settlement of their contracts.

³³ Railway Times, Nov. 14, 1854; editorial references in each number July 24 to November 11th, 1854; cf. New York and Chicago newspapers of the same dates.

³⁴ Ibid.

³⁵ See page 20

³⁶ Ibid.

Thus, less than six million^{allow} was actually received in cash from these unpaid instalments.³⁵ At the same time rapid increases in the price of raw material and the wages of laborers forced the contractors to demand a larger compensation for work already commenced, ^{these} ~~which~~ demands the company was bound to respect, in order to prevent a complete demoralization of the work through contractors giving up their contracts.³⁶ Under the circumstances the directors were forced to sell construction bonds at a discount. The charter prohibited this, but by the act of SALE OF CON- February 27, 1854, this restriction was removed.³⁷ ly
 STRUCTION as February, 1854, the company sold bonds at a small discount, and in spite of the low quotations for Illinois Central securities further issues were sold at current market rates, sometimes as low as only \$600 per bond.³⁸ Thus, by the 31st of December, 1857, the management had disposed of approximately four and a half millions of seven per cent bonds at 65, as against par for six per cent issues sold in 1852 and 1853.³⁹ Including instalments on loans made prior to 1854, i.e. the four and five million loans of 1852 and the three million ~~one~~^{four} of 1853, the company realized \$9,192,784.38 in cash from construction bonds from August 1st, 1853, to December 31st, 1857.⁴⁰ For the four and a half million sold in this period the company received only \$2,900,000, or \$650 per bond.

By selling these four and a half million dollars of bonds at 65 instead of par, the company decreased its receipts by approximately sixteen hundred thousand dollars, while, from various causes, cost of

- 425 Annual Reports, Illinois Central Railroad, 1855 to 1857, incl.
- 436 Railway Times, May 5, 1855 (Satterthwaite's Report).
- 437 Illinois Session Laws, Sess. 1853-4, Feb. 27, 1854, sections 2, 3.
- 438 Railway Times, May 5, 1855.
- 439 Ibid.
- 440 Annual Report, Illinois Central Railroad, Aug. 1, 1853, 1855-1857.

construction was increased by several millions. To meet this deficit in receipts the management resorted to the three hundred thousand acres of free land reserved by the mortgage of 1851, and in 1855 an additional \$3,000,000 ^{2-1/2 per cent} ~~FRL~~ mortgage, covering \$3,000,000 ~~of~~ Free Land Bonds of ~~LAND MORTGAGE~~ ~~OF~~ 1855 to 1860. 1860, was placed on the railroad and on the free lands. ^{4 1/2} The change that had come over the financial position of the Illinois Central is strikingly illustrated by the results of this loan. Only \$2,079,876.61, or \$694 per bond, was received. Including the discount, this was equivalent to about fifteen per cent for the five years the bonds ran, as against slightly under six per cent for the London loan of 1852. ^{4 1/2}

Even the Free Land Loan of 1853 was not sufficient to meet construction expenditures and finally, in 1856, the company resorted to what was virtually a debenture note. In that year there was issued \$900,000 of eight per cent optional right bonds, payable at any time after 1858. ^{8 1/2} To make the notes more inviting to investors, holders of ~~OPTIONAL~~ ~~RIGHT BONDS~~ these securities were given an option on stock equal to ~~OF~~ 1856-59 the face value of the bonds. ^{4 1/2} This issue was disposed of at a higher average price than the Free Land bonds, as it realized \$945 per bond, equivalent, including discount, to about eleven per cent interest. ^{6 1/2} However, borrowing money on short time notes at eleven per cent to finance a partially constructed railway was as dangerous as well as expensive piece of financing.

- ^{1 1/2} Annual Report, Illinois Central Railroad, 1855, 1856.
^{8 1/2} Ibid. The interest on the money actually received (\$694 per bond at 7%) was 10.1%. In addition, the company had to pay \$1000 per bond in 1860, although it received only \$694. As the company had the use of the money for between five and six years this was equivalent to about five per cent more, making a total of fifteen per cent.
^{8 1/2} Ibid., 1856.
^{4 1/2} Ibid.,
^{8 1/2} Ibid., cf. #2.

These loans did not provide the necessary capital, and to tide the company over the period of construction floating obligations in the form of bills and accounts payable were allowed to accumulate---- a makeshift which eventually inflicted great mortification as well as ACCUMULATION financial loss upon the company. Accordingly, miscel- OF FLOATING LIABILITIES laneous obligations were increased from \$812,076.78, on August 1st, 1853, to \$3,700,551 on October 20th, 1857. Against this liability the company carried in New York less than a hundred thousand dollars in cash or cash assets. ⁴⁶

While pursuing these expensive, though perhaps necessary, expedients of selling bonds and notes at a heavy discount, the company continued its weak policy in regard to assessments on the capital stock. Prior to 1854, calls for only a nominal amount had been made upon the stockholders, and, on August 1st, 1853, only \$746,465 had been paid, ASSESSMENTS an average of \$6.80 per share. ⁴⁷ In 1854 two assessments ON CAPITAL STOCK, 1853-6 of \$10 and \$5 respectively were made ⁴⁸ and this was followed the next year by two small calls of \$5 per share on the entire capital. ⁴⁴⁹ \$1,000,000 of new stock was also sold at \$25 per share. ⁴ In the middle of 1857 another call of \$10 was made, but only partial payments were made during the summer. ⁵⁰ By December 31st, 1855, there had been received in cash \$2,571,050, or an average of \$19.93 on the \$12,925,600 outstanding. The next year this was increased to \$3,558,615 ⁵¹, or \$25.20 per share on \$14,034,700.

Two additional sources were utilized during the period from 1853 to 1857, viz. net receipts from operation and sales of interest and

⁴⁶ Statement, Treasurer, August 1st, 1853; ~~ibid.~~ in Annual Report, 1857; Fisher's Report, Railway Times, June 19, 1858.

⁴⁷ Ibid.

⁴⁸ Viz. \$10 on 90,000 shares; \$5 on 129,346 shares; making a total of \$20 per share.

⁴⁹ Annual Report, Illinois Central Railroad, 1855.

⁵⁰ Ibid., 1857.

⁵¹ Ibid., 1855, 1856.

free lands. Early in 1853 short portions of the road were put in operation, and the net receipts began to constitute an appreciable amount.

From 1853 to 1855, inclusive, \$1,281,305.02 was received in this way. ^{✓ 2}

NET RECEIPTS FROM SALES OF LAND AND OPERATION OF THE RAILROAD In 1856 cash sales of free and interest lands were important, the combined receipts to 1857 being as follows:

Net receipts from Operation	\$2,154,403.78
Net receipts Free & Interest Lds.	<u>1,148,049.22</u>
Total net receipts	3,282,453.00
Interest to Dec. 31, 1857	<u>5,897,644.18</u>
Net deficit	2,615,191.18 ⁸⁵³

Thus the net receipts from operation and land sales ~~did not~~ ^{failed to} meet the interest payments in this period by two million six hundred thousand dollars and the deficit had to be made good by assessments on the stock and by sale of bonds. In fact it was not until the year 1861 that receipts from free lands and the operation of the railroad paid all interest charges. ⁸⁵⁴

The various issues of short term notes and the accumulation of unpaid bills meant that from 1853 to 1857 the directors were forced into a hand-to-mouth financial policy, offset to only a partial degree by subscriptions to stock or sale of long time bonds. The result of this policy is shown by the condition of the treasury in 1857. Over three million dollars of bills and accounts payable were still outstanding, while the amount of cash actually on hand in New York did not exceed a few thousand dollars. The company had a large amount of bills and accounts receivable, time loans and other slow assets, and uncollected instalments on stock, but these assets were not available in case of a sudden market stringency. ⁸⁵⁵ Steps had been taken

- ⁸⁵² Annual Report, Illinois Central Railroad, 1855.
⁸⁵³ Ibid., 1855, 1856, 1857.
⁸⁵⁴ American Railway Journal, quoted in Railway Times, Nov. 7, 1857;
⁸⁵⁵ Annual Report, Illinois Central R.R., 1856; Fisher's Report, Railway Times, June 19, 1858.
⁸⁵⁶ Annual Report, Illinois Central Railroad, 1861.

to remove these difficulties, but before they could be carried out there occurred the panic of 1857. The directors of the Illinois Central were unprepared for such a catastrophe; Mr. Osborn was in Europe at the time. Notes were presented for payment; the funds in the treasury at New York were very low, and though the company had eleven hundred thousand dollars to its credit in England and over a hundred thousand more in Chicago, it was impossible to draw bills of exchange at any reasonable discount. For the first and only time in its history the company was forced to suspend payment; the creditors, under stress of general financial failure, became urgent for their money; and, in the absence of the President, the Secretary made a temporary assignment of the property in order to prevent seizure of valuable assets by creditors. ¹⁵⁶

On his return to this country, Mr. Osborn commenced energetic measures to restore the property to the stockholders. Funds were rushed from England; arrangements were made with creditors for extension of notes; and the directors used their personal credit to put the company on its feet, Mr. Osborn, himself, endorsing ^{ed} notes to the extent of several hundred thousand dollars. ⁵⁴ Unpaid assessments were immediately collected;

FINANCIAL EXPEDIENTS ADOPTED TO ABOLISH THE ASSIGNMENT a call, payable September 25th, of \$10 per share, was made; and a further assessment of \$10 ordered early in 1858. ⁵⁸ In the emergency, the stockholders supported the company loyally, and made prompt payment of the additional calls, often at great personal inconvenience. The crisis showed the danger of large balances of unpaid bills and to eliminate this evil the directorate

⁵⁶ American Railway Journal, quoted in Railway Times, Nov. 7, 1857; Annual Report, Illinois Central Railroad, 1856; Fisher Report, Railway Times, June 19, 1858. ⁵⁷ Railway Times, June 19, 1858; Nov. 7, 1857; Aug. 7, 1858; Jan. 1st, 1858.

See page 177

[For note ⁵⁷ see p. 177]

the present day, the only one which has been preserved in its original form, and which has been the subject of many valuable editions. The first edition was published in 1540, and the last in 1740. The work is divided into two parts, the first of which contains the history of the city, and the second the description of its buildings and monuments. The author, who was a native of the city, has written with great accuracy and detail, and his work is still considered one of the most valuable sources of information concerning the history and antiquities of the city.

The second part of the work, which describes the buildings and monuments of the city, is also divided into two parts, the first of which contains the description of the public buildings, and the second the description of the private buildings. The author has written with great accuracy and detail, and his work is still considered one of the most valuable sources of information concerning the history and antiquities of the city. The work is written in a clear and concise style, and is well illustrated with many fine engravings of the buildings and monuments described.

The work is written in a clear and concise style, and is well illustrated with many fine engravings of the buildings and monuments described. The author has written with great accuracy and detail, and his work is still considered one of the most valuable sources of information concerning the history and antiquities of the city.

issued sufficient short term notes to pay off all such bills. Previously, they had found that the optional right bonds had been very successful, and the \$900,000 outstanding was now increased to \$5,200,000. Optional rights on 85,000 shares of stock were to expire between the first of June and the first of July and this formed the basis of the loan. The bonds were convertible into stock prior to February 20th, 1860, on the basis of twenty five shares of stock with \$40 paid in, for each \$1000 bond, and were to be redeemed on or before the 20th of February, 1868.⁵³ Although the interest rate was only seven per cent, the convertible feature was so attractive that something like \$2,558,000⁶⁰ was subscribed by the 1st of May, 1858.

These energetic measures accomplished their object, and by the close of the year 1858 the company was again on a sound financial basis. All the floating debt was either paid or otherwise provided for and the ^aAssignment was removed. During the fifteen months from October ASSIGNMENT 1857, to December 31st, 1858, between seven and eight million^{dollars} OF 1857 RE-^{was} paid into the treasury of the company in cash or MOVED 1858 lions in various Illinois Central bonds in payment of stock, allowing the directors to retire the entire floating debt, with the exception of \$396,167.53, and to pay all construction and interest charges in full.⁶⁶ Thus, through the efforts of Mr. Osborn and his associates, the company passed through the Assignment with an untarnished record, and, in 1858, its credit was higher than it had been for six years. Though somewhat expensive, on account of the various financial expedients which had to be adopted, the crisis of 1857 taught the company a valuable lesson.

⁵³ Railway Times, Jan. 1st, 1858; Aug. 7, 1858.

^{56a} Ibid., Aug. 7, 1858.

^{56b} Annual Report, Illinois Central Railroad, 1855-6 to 1858.

⁵⁷ (Page 176) A number of the English investors accused Mr. Osborn of taking advantage of the company's condition to fill his own pockets, but this resulted from the strong feeling over increased stock assessments, and Mr. Osborn's long connection with the company, during which he was ably supported by these very same men, amply refutes this assertion. What compensation he received was by regular vote of the directors.

By 1859 all danger from the floating indebtedness had been removed but there still remained the Optional Right Bonds of 1868 and the Free Land bonds of 1860. Under the mortgages these bonds could be retired in 1859 and 1860, and in those two years all notes and floating liabilities in excess of those included in strictly operating accounts, and RETIREMENT OF the Free Land and Optional Right bonds, were cancelled, SHORT TERM NOTES & BONDS leaving the construction bond mortgage of 1875 as the only lien upon the property. Thus, at a late date, the company adopted a policy that should have been pursued from the commencement of the undertaking.

and 1858

During the years 1857/ the shareholders had paid in an average of \$55 per share on stock which they supposed would cost them practically nothing, and judging from comments in the English press British investors in the Illinois Central were thoroughly indignant at the American directors. Meetings of shareholders were held, two special committees were sent to the United States, and the English stockholders and bondholders formed a permanent organization to supervise the affairs of the corporation.⁶² The continued assessments, stimulated by a strong bear movement on the exchange, forced down the price of both stocks and bonds and for a time many of the small shareholders were thoroughly frightened. The company was not

⁶² Cf. Railway Times, November, 1857, to December, 1858.

The attitude of the more conservative investors is shown by the following letter written by Richard Cobden: "I do not change in the slightest degree my opinion in consequence of the fall in the Illinois.- That the stock will go up again to its former level I have no doubt. It is not as a railroad investment that I regard so favorably this undertaking, but its value in my eyes depends on the landed estate which is the noblest domain ever transferred in one conveyance. Nothing but an earthquake or some other convulsion of nature can impair the value of 2,600,000 acres of the richest soil in the world, situated in the midst of the most industrious & intelligent population.-The Wall Street "bulls" & "bears" will make no durable impression on such a property." Mss. letter to Sir Joshua Walmsley, Midhurst, Sept. 18, 1857. Original in office of President, Illinois Central R.R.

yet in a position to ignore the stock market and accordingly, as a peace offering, the directors adopted two very important measures, both of considerable financial benefit to the shareholders.

The first of these was the Cancelled Bond Scrip Dividend. By 1856 the sales of land had been sufficient to cancel about \$600,000 of the construction bonds and on July 12th, 1858, as the result of strong pressure from the English shareholders, the management ordered that "when-
 CANCELLED
 BOND SCRIP
 DIVIDEND ever the amount of construction bonds cancelled in a year should amount to five per cent on the share capital of the company, certificates setting forth the amount so cancelled should be distributed pro rata among the shareholders and this scrip should be entitled to the same dividends as regular stock." These dividends were continued until 1863, by which time the amount so distributed was \$1,772,270. After 1863 the profits from the land sales were divided among the shareholders in other ways.

The second dated from May 27th, 1859, and entitled any stockholder who had paid up the full par value of his stock to receive four per
 FOUR PER CENT
 INTEREST ON
 FULLPAID STOCK cent interest per annum on the same until a regular cash dividend of at least four per cent had been declared. There had been previous interest dividends paid in cash, but they were sporadic, and this measure now offered an inducement to the shareholders to pay up their stock in full.

These ~~influe~~ measures had a very important influence on the stock account and encouraged the shareholders to pay up all unpaid calls and

- 163 Resolution of the Board of Directors, passed July 12th, 1858, quoted in Railway Times, August 7th, 1858.
 864 Annual Report, Illinois Central Railroad, 1863.
 865 Ibid., 1859; 1855-1865; Resolution of Board of Directors, quoted in Railway Times, June 18th, 1858.

assessments. As a result the number of full paid shares increased from none in 1858 to 97,821 in 1863, and the cash received from all shares from \$3,558,615 in the spring of 1857 to \$15,654,980 in 1860 and \$17,543,700 in 1863.

During the three years ending December 31st, 1860, expenditures for construction amounted to \$1,080,237.86 and the deficit in net earnings over interest charges to \$2,095,408.08, thus leaving \$5,622,899.06 to cancel bonds and miscellaneous obligations. The CONSTRUCTION Free Land bonds were paid off at maturity in 1860, and MORTGAGE ONLY LIEN ON ROAD the optional right bonds were either redeemed by cash payments or converted into stock. This left the construction bonds of 1875 as the only funded debt. Moreover, receipts from land sales had reduced the amount outstanding in 1860 to approximately fifteen millions, as against a share capital of \$17,945,400, of which \$15,654,980 had been paid in cash. This was a decided contrast to conditions in 1853 when less than eight hundred thousand dollars had been paid by the shareholders.

The methods used to obtain money for construction purposes having been reviewed it is important to see where these millions of dollars went. To December 31st, 1857, when the railroad was in full operation, the expenditures for equipment and construction amounted to a total of

165 Annual Report, Illinois Central Railroad, 1856-1864.

269 Ibid., 1858-1860.

368 Ibid., report of the Land Department, 1860.

The following table shows the status of the stock account, 1856 to 1863, and the amount received in cash in the various years:--

YEAR	ISSUED	RECEIPTS	\$100 SHARES	\$90 SHARES	\$10-\$60 SHARES
1856	\$14,034,700	\$ 3,558,615			
1857	17,496,450	6,856,433			
1858	17,500,000	10,484,210			
1859	17,500,000	11,417,090	22,333		
1860	17,945,000	15,654,980	79,933		
1861	17,945,400	16,129,095	87,633	82,104	174,213
1862	17,945,400	17,124,360	97,350	86,240	149,101
1863	24,108,100	17,543,700	97,821		
	18,406,100				

\$23,436,668.32, or \$33,198 per mile¹, to which should be added interest during the period of construction.² Including all proper construction charges, the total expenditures for permanent improvements chargeable to capital were as follows:--

Construction charges to December 31st, 1857	\$23,436,668.32
Interest charges to Dec. 31, 1856	\$4,874,279.59
Less net rcpts. from operation	<u>1,742,930.30</u>
TOTAL COST OF THE ILLINOIS CENTRAL	<u>\$26,568,017.61</u>

While the aggregate cost is high there seems to be no reason to question the correctness of the accounts, ~~and little criticism as to the wisdom with which expenditures were made~~. In 1857 the Illinois Central Railroad was undoubtedly the best built road in the West; ample terminal and yard facilities existed; right of way and station grounds were more than sufficient for the existing business; bridges and culverts were usually of stone or iron and always substantial; grades were ~~light~~ ^{CRITICISM} light, curves were of large radius, and tangents constituted ^{OF CAPITAL} about ninety per cent of the line; the equipment was up-to-date in every particular, ample in amount, and well built; on the whole roadbed and equipment were sufficient to provide for traffic several times that of 1857. There were occasion ^{al} misappropriations of funds, poor contract work, ^{and} speculations, ~~etc.~~, but there was not that organized corruption and mismanagement characteristic of many of the land grant roads. The company itself did most of the construction work and all contracts were satisfied in cash or bonds at par. Moreover, the officials of the company were able to secure supplies and labor at low

469 Annual Report, Illinois Central Railroad, 1855 to 1857, cf. page for detailed statement of cost.

* The interest charge is based on the following assumptions; (1) the road was not in completed condition until December 31st, 1857; (2) interest, less net receipts from operation, should be allowed from the time individual sections were opened until the whole was in complete operation. These assumptions are not absolute correct, but the above plan seems to be the best basis for determining interest during construction.

prices. The average wages of employees did not exceed those paid in the eastern States; nearly all of the iron was purchased in England at very low prices; and the right of way, which to-day is worth a fabulous amount, was secured at a nominal cost. Three times the English shareholders sent a special committee to this country to audit the construction accounts of the Illinois Central; they were given complete access to all vouchers and original records; and in their published reports the three committees state emphatically that, so far as they could discover, the accounts were honestly kept, and no fraud or speculation of any extent was found.⁷⁰ Moreover, from a comparison of detailed expenditures of the Illinois Central with those of several other roads⁷¹ it appears that, in the majority of cases, the Illinois corporation paid lower unit prices for material than any of these companies.⁷² The amount of interest seems somewhat excessive, but this was made necessary by the size of the railroad, which prevented efficient operation of the road until the whole was completed in 1856. Therefore, it is safe to say that the \$26,568,017.61 given above is a reasonable and bona fide statement of the actual expenditures and is a proper charge to capital.⁷²

It is not possible to make so favorable a statement in regard to the wisdom with which part of this money was spent. Throughout the early history of the company the directors held rather exaggerated views of the traffic possibilities of the road. They also adhered to the English system of building a railroad in a thoroughly substantial

- 1 ⁷⁰ Ackerman, Historical Sketch of the Illinois Central Railroad, p. 2
 2 Viz. Railway Times, Nov. 27, 1858; *ibid.* June 19, 1858; Report of the Committee of Dutch and English stockholders, 1876.
 3 ⁷¹ Viz. New Orleans, Jackson & Great Northern; Mississippi Central; Mississippi & Tennessee; Ohio & Mississippi; Michigan Central.
 4 A comparison of prices on the Illinois Central and these roads is found on page 72.
 5 ⁷² With different methods of accounting used in the fifties it is impossible to obtain an absolutely accurate statement of expenditure at that time. However, the figures may be regarded as absolutely correct for the first two places. The smaller amounts are retained to conform to the figures of the company.

manner. It goes without question that the heavy initial expenditures materially reduced operating expenses, but it is also true that a much lighter construction would have answered the needs of that period just as well, and the company would have been saved interest charges on expenditures, which were useless for many years. For instance wooden trestles would have answered as well as stone culverts; frame stations might have been used instead of brick; and similar inexpensive, but serviceable, equipment could have been used to advantage in many places.

The period from 1850 to 1857 was a time of construction; the years from 1857 to 1870 were years of enormous traffic development which necessitated large additions to capital. Gross earnings rose from \$2,500,000 in 1857 to \$8,700,000 in 1870, or an increase of 266%, while the number of tons of freight moved one mile increased from fifty million to two hundred and sixty five million, or 430%.⁷³

At any period of railroad history, such an enormous development would have demanded heavy capital expenditures, but with the poor operating methods then in vogue the amount of equipment had to increase in almost direct proportion to the growth of tonnage. The greater number and weight of trains also necessitated many improvements of the property. In the thirteen years ending December 31st, 1870, the charges to capital amounted to \$7,084,421.10, bringing the total cost in 1870 to \$33,653,339.71, or \$47,710 per mile. This amount was distributed as follows:--

Construction	\$4,317,169.05
Equipment	2,767,252.05
TOTAL	7,084,421.10 ⁷⁴

⁷³ Annual Reports of the Illinois Central Railroad, 1857 to 1870; the last three years include earnings of 200 to 402 miles in Iowa, amounting to between a million and a million and a half a year.

⁷⁴ Ibid. Cf. Note 1, page 184.

In addition to the money expended on the Illinois Central proper, a few thousand dollars was applied to capital account on the Iowa leased lines, but this is not included in the total. ¹⁷⁵

Statements have been made that in the Civil War period and the years immediately thereafter the Permanent Improvement Account of the Illinois Central was unduly increased at the expense of operating charges. ¹⁷⁶ There is just enough truth in the statement to make necessary a somewhat thorough explanation. Prior to about 1872 or 1873 maintenance expenditures were ~~on a~~ ^{made very high} ~~very~~ lavish scale, being liberal even when compared with present expenses on the system, ¹⁷⁷ and it is improbable

¹⁷⁸ Annual Report, Illinois Central Railroad, 1857 to 1870. The expenditures for Permanent Improvements were distributed as follows:

Bridging	\$ 496,016.59	
Ballasting	401,865.55	
Sidings	495,624.06	
Lake Shore Protection	292,416.23	
Real Estate	163,115.91	
Rails	49,223.60	
Ties	
Fencing	74,815.79	
Telegraph	36,674.16	
Engineering	40,953.92	
Gen'l Expense	420,360.65	
Buildings	951,108.45	
Masonry	119,172.83	
Roadway	261,237.54	
Miscellaneous	\$4,317,169.05
Locomotives	1,071,944.08	
Freight Cars	1,389,385.64	
Coal Cars	10,985.22	
Passenger Cars	140,151.49	
Shop Machinery, etc.	141,963.31	2,767,252.05
TOTAL		\$7,084,421.10

¹⁷⁶ In the report of the English and Lutch Committee of 1876 it was claimed that up to that time many items, properly chargeable to operation, were included in capital accounts.

¹⁷⁷ For instance, in 1867, the year the Iowa lines were taken over, but before the lease had affected conditions in Illinois the expenditures for maintenance were:--

Bridges \$125; buildings \$135; labor \$1,672; total maintenance of way, \$2,080 per mile; Repairs, locomotives, \$3,060 per locomotive; repairs passenger cars \$1,378 per passenger car; repairs freight cars \$87 per car; total maintenance of way equipment, \$1,470 per mile. Annual Report, Illinois Central Railroad, 1867.

that with such liberal appropriations the property would run down. The company also had a very good system of accounting and the accounts were as accurately distributed as on any railroad of the time. The follow-

PERMANENT IM-
PROVEMENT EX-
PENDITURES A
PROPER CHARGE
TO CAPITAL

ing statement of the Board of Directors approved by them on February 6th, 1874, shows the attitude of the company towards this matter:--"it should be noted that

upon the plan of making up the construction account followed by most railways, our charge to construction expenditures, would be considerably increased, owing to the fact that, during the last ten years, extensive improvements and additions have been made to your property, which might have been charged to capital account, but have been included in working expenses.⁷⁸ Moreover, with the exception of the years 1865 and 1866, the net receipts from operation greatly exceeded the fixed charges and dividends, and consequently, there was no motive to increase the capital account at the expense of operating charges.⁷⁹

Thus, it seems entirely reasonable to accept the company's statement of Permanent Improvements for this period. /Nor is there any ground to criticize the wisdom of most of the expenditures./ As the greater proportion of the permanent improvements were paid for out of surplus receipts---in other words, at the expense of possible dividends---it may be taken for granted that reasonable economy was exercised. However, as explained at greater length on page 18, the Illinois Central diverted a part of the receipts of the Land Department from the purposes outlined in the mortgage of September 12th, 1851, and had this not been done there would have been a deficit in some of the years, and in none of them did the net earnings and "proper" receipts from the Land Department equal the interest and dividend payments. As a result the company virtually

⁷⁸ Quoted in Annual Report, Illinois Central Railroad, 1874.
⁷⁹ Annual Report, Illinois Central Railroad, 1857-80 1870.

paid dividends out of capital. While this policy disregarded the spirit of the mortgage of 1851 and was not as conservative as might have been desired, it is unreasonable to accuse the company of a serious error in accounting.

In the period before 1857, practically all the expenditures for permanent improvements or construction, came from the sale of bonds; after 1857 net receipts from operation and sale of lands, and assessments on stock, paid the major portion of such charges. From 1861 to 1870, net receipts from sales of free and interest land and from opera-

PERMANENT IMPROVEMENTS 1857 TO 1870 PAID BY THE SHAREHOLDERS tion exceeded dividends and fixed charges by \$2,381,203, however, the fixed charges and interest dividends from 1857 to 1860 exceeded the net earnings by \$1,809,613.13, leaving a net surplus for the thirteen years of only \$285,794.95.⁸⁹ The deficit of interest and dividend payments over net receipts from operation alone amounted to several million dollars.⁸⁶

In President Schuyler's financial plan of 1851, the funded debt, then represented by the \$17,000,000 construction bonds of 1875, was a temporary expedient. Under the terms of the mortgage two million acres of land were set apart as security for the loan, and the instrument was so worded that on the completion of each sale, bonds, equal in value to

Annual Reports, Illinois Central Railroad, 1857-~~to~~ 1870.

From 1857 to 1870 there was received in cash from the shareholders \$12,880,265, to which should be added the net surplus of \$285,794.95, making a total of \$13,166,059.95. During this period various expenditures not chargeable to operation were as follows:-

Permanent Improvements	\$7,084,421.10
Redemption Free Land Bonds,	
Optional Right Scrip, current	
liabilities, etc. (approximately)	6,500,000.00
TOTAL	13,584,421.10
Received from stockholders and	
net surplus from operation	13,176,059.95
DIFFERENCE	418,361.15

This difference would be accounted for by the surplus in 1870, and miscellaneous investments during the period.

the land disposed of, would be cancelled. Thus, through the operations of the Land Department, the entire loan was to be paid off not later than 1875. Various difficulties delayed the sale of the construction lands. Except in a few favored regions, transportation facilities were still poor and several million acres of government land, selling as low as \$2.50 an acre, were also on the market. By the mortgage \$8 was the

TERMS OF SALE lowest price for any of these lands and the company
OF CONSTRUCTION BOND LAND found it necessary to wait until most of the government domain had been disposed of before placing its own land on the market. The construction of the railroad in 1856 made settlement of the interior counties of Illinois much easier and by that year practically all of the government land had been sold. Tens of thousands of settlers were seeking farms near the railroad, and the company was thus in a position to demand reasonably high prices for its land. However, through legal restraints and the good judgment of the directors, the company pursued a very liberal policy. Cash payments were not required, as was the case with the Federal Land Office. Instead, the settler could purchase his farm on credit, by giving a note for the amount, the principle^{al} to be paid in five equal instalments, with interest at six per cent, the company, of course, retaining title until all payments were completed.⁸²

In 1856 active efforts were made to sell the land and nearly five hundred thousand acres were sold for upwards of four and a half million dollars. The sales in 1857 were almost as large.⁸³ Most of the sales were made to actual settlers in small holdings of one hundred to a

⁸² Land Office Pamphlets, Illinois Central Railroad, 1856, to 1870. The interest per annum varied from two to six per cent, but most of the land was sold on the basis of six per cent.

⁸³ Annual Reports, Illinois Central Railroad, 1856, 1857. Reports of the Land Office.

hundred and twenty five acres, although at first a considerable quantity was disposed of to speculators. In the panic of 1857 the company experienced much difficulty with this class of purchasers, and from 1857 on it refused to sell except to bona fide settlers.

Up to the summer of 1857, sales were all that the company could have desired, and everything indicated a continuation of the purchases on the same extensive scale. But just at the height of the sales, there occurred the panic of 1857 and the Assignment, which, of course, put a sudden stop to immigration into the state and to further sales. Purchases dropped from \$4,500,000 in 1856 to less than \$500,000 in 1858 and to still smaller proportions in 1859.⁸⁴ More important, still, many

DIFFICULTIES
OF LAND DEP'T
IN 1857-1861

of the farmers along the road had purchased land on credit and the panic left them unable to market their corn, wheat, and pork, or else they had no crops to market on account of repeated droughts. In many cases settlers were unable to make any payment whatever. Over a million dollars was due in both 1858 and 1859 and the purchasers had no cash to meet the instalments. To foreclose the mortgages or notes meant distress to tens of thousands of farmers and a serious impairment of revenue, through reduced acreage, to say nothing of universal illwill. In this emergency the company followed a wise and conciliatory policy. Farms purchased by speculators or those too shiftless to succeed, were foreclosed. Where crop failures and the panic prevented payment of the instalments by bona fide settlers, payment in kind was allowed, generally corn. Where even this could not be done, notes were extended and in other ways the farmers were encouraged to remain. Most of the settlers along the railroad took advantage of

⁸⁴ (Annual Reports, Illinois Central Railroad, 1858, 1859; Reports of the Land Office.
Department

this generosity, and a large proportion of the payments due in 1858 and 1859 were extended. Altogether, over two million bushels of corn were received in payment of land notes and the officers of the company found themselves engaged in the grain business on an extensive scale. Miles of cribs were erected along the tracks and corn was held there for several months. In the end the company lost quite a large amount by handling this grain, though it was much more than compensated by the increased good will of the people along the line and by the prosperity of the farmers.⁸⁶ Its liberal policy secured it the support of the entire rural population of Illinois, and for a decade the Illinois Central Railroad was the most popular corporation in the state. It must be admitted, however, that the English shareholders viewed this generous policy with many misgivings and severely criticized the management for its liberality.⁸⁶

Following the droughts, crop failures and panics of 1857, 1858, and 1859, came the good times of 1860, and the sales of land again reached the proportions of 1856. The respite was only temporary, and in the spring of 1861 the great struggle between the North and South commenced. The Illinois farmer was cut off from his southern market;

EFFECT OF thousands of men entered the federal armies; and lack of
THE CIVIL a market and scarcity of labor made the year 1861 notable
WAR ON THE for its severity upon the farmers.⁸⁷ But the war was ~~a~~ ^{created a}
LAND DE-
PARTMENT

blessing instead of a curse to the Illinois Central Railroad and to the
 Illinois farmer. ^{demand for} vast quantities of corn, wheat, oats and meat were
 needed ^{for} by the army; the eastern and New England states increased their

--- and Data 1873
1⁸⁵ Report of the Committee of English Shareholders, (Fisher Report),
Railway Times, Nov. 27, 1858; annual reports, Illinois Central
Railroad, 1856 to 1861. This loss was borne by the Land Department.
8⁸⁶ Ibid.
8⁸⁹ Bogart, Economic History of the United States, chapter xx. Cf.
Chapter iv, where these points are taken up at much greater length.

manufacturing industries enormously, and the West was called upon to supply a part of the raw materials for these new industries and food for the men supported by them.⁸⁸ Several hundred thousand settlers took up claims or purchased farms in the western States and a considerable proportion of this immigration remained in Illinois. The demand for railroad lands grew with the immigration and in 1865 the sales of the Land Department surpassed all previous records, and, that too, at increased prices.⁸⁹ By 1864 the farmers were again in a position to pay their notes, and in that year the cash receipts of the Land Department reached the high water mark of \$1,440,000.⁹⁰

The remainder of the decade continued to be a period of unabated prosperity in which the agricultural interests of Illinois were especially favored, and the demand for farms remained good. By 1870 practically all the land north of Vandalia, and much south of that town, LAND SALES had been disposed of at good prices, while instalments on FROM 1865 TO 1875 previous purchases had been paid promptly and in full.⁹¹

Thus, by December 31st, 1870, \$13,641,616.40 had been received from construction land and \$8,800,000 more from free and interest lands, while upwards of four millions was still due the company on notes, making a grand total of considerably over \$26,000,000 received from the land grant prior to 1870.⁹²

From 1870 to 1875 the sales of new land were very small. Less than two hundred thousand acres of inferior land was sold, as ^{compared with} against five times as much in the previous half decade. However, it was a

- Bo
¹⁸⁸ Bogart, Economic History of the United States, chapter xxv. Cf. Chapter iv. *infra*.
⁸⁸ Annual Reports, Illinois Central Railroad, 1860- to 1863.
⁸⁹ Ibid., 1865.
⁹⁰ Ibid., 1870.
⁹¹ Ibid., 1870, report of the Land Department.
 6

period in which practically all the outstanding notes were paid off, with the result that cash receipts were large. From 1871 to 1874 \$2,304,649.87 was received in cash for sales of new land and nearly all of the unpaid notes of 1870 were liquidated. At the close of 1874

the mortgage of September 13th, 1851, was cancelled and the land grant was freed from all restrictions. The following table shows the total receipts from the Land Office from 1851 to 1874, inclusive:--

Construction Bond Fund	\$15,946,272.27	
Interest Fund	6,051,856.85	
Free Land Fund	<u>3,508,488.51</u>	\$25,506,627.63
Expenses Land Office to 1873	1,383,644.04	
Paid Traffic Department	297,589.59	
Bills receivable, etc. (1874)	<u>75,369.90</u>	<u>1,754,603.53</u>
TOTAL		\$27,261,231.16
Net receipts Land Office, 1875 to 1907		<u>2,219,061.66</u>
GRAND TOTAL		\$29,480,292.82 8 74

In 1874 approximately two million two hundred thousand acres had been sold, which made an average receipt per acre of a little over twelve dollars, including expenses, or eleven dollars net receipts. This

193 (Annual Report, Illinois Central Railroad, 1874.) Report of the Land Department.
894 Ibid.; 1855- to 1907; inclusive; Fisher Report, Railway Times, Nov. 27, 1858; Report of the Committee of English and Dutch Shareholders, 1877; Cf. Special Reports of the President, Illinois Central Railroad, 1890, 1897, and 1906.

In 1851 President Schuyler predicted that the land grant would be sufficient to pay the entire cost of the railroad and if the receipts of the Land Department had been applied to the capital account that prophecy would have been fulfilled.

Cost of Railroad to Dec. 31st, 1857	\$26,568,017.61
Receipts Land Department to 1874-net	<u>25,506,627.63</u>
Difference.	1,061,389.98

The value of unsold lands in 1874 was much larger than this difference. If the spirit of the mortgage of 1851 had been rigidly followed and deficit in earnings before 1863 been made up by out of surplus receipts from 1864 to 1870, the receipts of the Land Department would have sufficed to have cancelled paid back the cost of construction to 1857. However, a large part of the receipts from the land grant went directly into the treasury of the company

grant of two and a half million acres of land has been a source of great profit to the company. At the same time it has been managed well, and sold to the best advantage of the community as a whole, as well as of the company.

Of the total receipts of the Land Office, \$11,779,407.02 to 1907, or \$9,560,355.36 to 1874, was used for the payment of interest and dividends; the cancelation of floating indebtedness, free land bonds and optional right notes; for permanent improvements defrayed from income; to the purchase of securities of other companies, especially the lines south of Cairo; in a word to the same purposes as the ordinary receipts from operation.⁹⁵ The remainder, amounting to \$15,946,272.27, was ap-

RECEIPTS FROM
LAND GRANT USED
FOR GENERAL
PURPOSES AND TO
CANCEL BONDS

plied towards cancelling, in part, the construction bonds of 1875, in accordance with the mortgage of 1851. ^{It will be seen} From the report of the Land Department for 1872, the last full report, (but covering receipts of only a few hundred thousand dollars less than the receipts to 1874, ^{that} \$15,103,178.59, received to that date, ^{paid off} cancelled construction bonds to the value of \$13,609,500, allowing a premium of eleven per cent, or \$1,493,678.59. In 1873 and 1874 \$657,856.47 was received, and the proportion of premium to par value was presumably about the same.⁹⁶

Since the mortgage covered \$17,000,000 and only \$14,200,000 was received from the sale of land there was a balance of approximately \$2,900,000, which came from other sources, mainly the Sterling and Currency Redemption loans. These bonds had three uses (1) to provide

STERLING
AND CUR-
RENCY LOANS

construction bonds for the Land Department; (2) to pay for permanent improvements chargeable to capital; (3) to substitute new bonds for the construction bonds, and to allow the sales of construction land to be used for interest and dividends.

⁹⁵ Annual Report, Illinois Central Railroad, 1855-~~to~~ 1906.
⁹⁶ Ibid., 1855-~~to~~ 1875; Report of English & Dutch Committee of 1877.

The Committee of

Stockholders,

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By the terms of the construction bond mortgage, bonds had to be cancelled on the completion of every sale of land. Prior to 1861 the cash receipts from construction land were less than two and a half million dollars and sufficient bonds could be obtained in the open market on reasonable terms. So long as this condition continued the terms of the mortgage inflicted no hardship upon purchasers of land. The prosperity resulting from the Civil War allowed settlers along the railroad

PURCHASE OF
CONSTRUCTION
BONDS BY CURRENCY
REDEMPTION
BONDS

to pay for their farms, and, in both 1862 and 1863, there were large demands for the bonds, which naturally advanced the price of these securities. Many holders

saw a chance to make a profit by retaining the bonds and forcing the company to recall them at the twenty per cent advance specified in the mortgage, which again tended to advance the price. The bonds were gilt with interest payable in gold edge securities/and with the general advance in prices during the period they increased in value from this cause also. To compel the settlers or the Land Department to purchase the bonds at an advance of fifteen to twenty per cent was an injustice and to remove the difficulty the directors, in 1863, issued \$2,500,000 six per cent 1st lien currency redemption bonds of 1870, with the object of purchasing construction bonds. These new bonds could be exchanged for the old on the basis of \$100 currency bonds for an equal amount of six per cent construction bonds, or \$115 of the new for \$100 seven per cent construction bonds. ²⁵

This absorption of construction bonds in 1863 and 1864 temporarily satisfied the needs of the Land Department, but, by 1867, some \$6,441,145.37 had been received from purchasers of land and conditions

¹⁹ Annual Report, Illinois Central Railroad, 1863. The six per cent currency bonds were a first class security and the few bonds sold on the open market brought \$1000 per bond. However, nearly all of the issue was exchanged for the construction bonds on the agreed terms.

were as bad as in 1863. The same remedy was applied. In 1867, sterling six per cent redemption bonds of 1875 to the amount of £500,000, or \$2,500,000, were issued and exchanged for construction bonds on about

PURCHASE OF the same terms as the currency redemption bonds.⁷⁸⁴ Both
CONSTRUCTION issues were easily disposed of, and, by 1870, the
BONDS BY
STERLING RE- entire loan of \$5,000,000 had been sold for cash at
DEMPTION BONDS par or above, or exchanged for construction bonds on the terms specified above.⁷⁹² Of the combined total approximately \$4,000,000 was used to purchase construction bonds, and, of this amount, perhaps \$750,000 was used in strict accordance with the terms of the mortgage of 1851.⁸

When the two loans were placed it was understood that a part of the proceeds should be used to defray the cost of new equipment and improvement of the property. No figures are given by the company as to just how much was spent for this purpose, but, as shown on page 186 the approximate amount expended in this way was a million and a half.⁴ Of this perhaps a half was received from the sale of bonds for cash and the remainder by exchanging redemption bonds for construction bonds and transferring the proceeds from the Land Department to permanent improvements.

However, the greater portion of the receipts from these two issues were used in a way entirely contrary to the spirit of the construction bond mortgage. When that instrument was made in 1851, it was understood

DIVERSION OF RE- that the two million acres set apart would be sufficient to cancel the entire loan and that all the
CEIPTS FROM CON-
STRUCTION LAND
TO GENERAL USES
OF THE COMPANY proceeds from the land would be used to retire the construction bonds. If the construction bonds were purchased through the issue of other bonds it would not be necessary to apply the re-

⁷⁸⁸ Annual Reports, Illinois Central Railroad, 1867.

⁷⁹⁹ Ibid., 1863-66 1870.

⁸⁻⁴ Cf. page 186, text and notes.

ceipts from the sales of land to that purpose and the money so received could be turned into the general treasury to be used for interest and dividend payments. About \$3,500,000 of the Redemption bonds were used to purchase construction bonds and instead of an equal amount of receipts from the Land Department being credited to the Permanent Improvement account, as an offset to the new bonds, the money was turned into the Free and Interest Land account and made available for interest and dividend payments. In this way the net earnings from operation were greatly increased and the company was able to pay ten per cent dividends. Had the \$3,500,000 been applied in strict accordance with the mortgage there would have been a deficit in net earnings for the period from 1857 to 1870 of approximately \$3,250,000, instead of a surplus of \$250,000. Under the changed conditions the company could not consistently have paid the dividends it did. In other words, following a strict construction of the mortgage of 1851, the company from 1863 to 1870 was paying part of its dividends out of capital. Except for a very few years the net earnings from operation alone were never sufficient to provide for both interest and dividends. Moreover, for the thirteen years, the net earnings from operation and the receipts from the free and interest lands as originally created, were less, by some two and a quarter million dollars, than the disbursements for interest and dividends, to say nothing of expenditures for permanent improvements.¹⁰⁶

¹⁰⁶ (Annual Reports, Illinois Central Railroad, Report of Land Department, 1872, 1873, 1874; Report of Fisher Committee, Railway Times, Nov. 7, 1858; Report of the Committee of English and Dutch Shareholders, 1877. Cf. page 186, text and notes; also 184 and 185.) Neither the company itself nor the various investigating committee make any definite statement as to where the receipts from the six per cent redemption bond issues went and for that reason the figures given above are only approximate.

However, the course pursued was not without justification. Strict adherence to the mortgage would have necessitated a reduction of dividends by about two per cent a year. After the railroad was built there were no legal restrictions upon the company's use of the land grant, except those provided in the mortgage of September 13th. The other restraints were those of the company's own making and so long as the security of the bondholders was not impaired it had a perfect right to abolish such self imposed obligations. Moreover, under the circumstances, it would have been foolish for the management to have pursued an ultra-conservative policy, detrimental to the immediate interests of the shareholders, when a more liberal construction of the mortgage and the President's plan of 1851 was very profitable to the owners of the road, and ~~but~~ did not impair the value of the property.

Aside from the objections noted above, the construction bond account was well managed and, on the whole, was of real benefit to the railroad. At the same time, it was a rather expensive loan. For the \$17,000,000 of bonds issued there was received in cash only \$15,387,902^{.06} while \$18,493,678.59 was spent to retire them, allowing a difference of \$3,105,776.53, or 20.2%¹⁰⁶. Practically all the loss fell upon the seven per cent issues, and by some strange movement of chance the six per cents netting^{ed} the company nearly fifty per cent more per bond than the seven per cents, although the latter were equally well secured and bore one per cent additional interest. On the other hand, the construction bond loan of the Illinois Central was far more profitable to the company than were the results of similar loans for construction purposes of such companies as the Ohio and Mississippi, St. Louis, Alton & Terre Haute, and Great Western of Illinois.

106 Annual Reports, Illinois Central Railroad, 1855- to 1875. Cf. Report of English and Dutch Committee of Stockholders, 1877.

Closely connected with the operations of the Land Department and the issue of the two redemption loans was the action of the company in regard to the stock account. Prior to the assignment of 1857, as already stated, only nominal assessments were made on the share capital, most of the funds for construction coming from the sale of bonds. Then from 1858 to 1863 this policy was reversed and heavy calls were made upon the stockholders, with the result that ~~from~~^{from} 1857 to 1870 \$12,880,265 was received in cash from stock assessments. This, of course, was a favorable showing. Beginning as early as 1860 the receipts from construction lands had decreased the funded debt and during the same period payments on the capital stock allowed an increased investment in the property, without a corresponding increase in liabilities. By 1865 these two parallel movements brought the cost of the STOCK DIVI- railroad to something like three million dollars more DENDS OF 1865 AND 1868 than the sum of all liabilities; in¹⁰² other words there was a surplus of that amount.¹ This was a condition directly opposed to the original plan of the promoters, by which the bonds were to pay for the road and the stock was to be largely water, and to conform to the plan of 1851 the directors from 1858 to 1863 issued \$1,772,270 of Cancelled Bond Scrip Dividends, referred to on page 179.¹⁰³ Further reduction of the funded debt continued to take place and in 1865 a stock dividend of ten per cent, or \$2,119,930, was ~~made~~^{declared,} followed in 1868 by another of eight per cent, or \$1,881,100.¹⁰⁴ According to the common meaning of the term these stock distributions constituted stock watering, because in no case did the shareholders contribute a penny directly to the company in return. Nevertheless, this action was justified from the standpoint of the shareholders and the company.

- ¹⁰² Annual Reports, Illinois Central Railroad, 1863.
¹⁰³ Ibid., 1855 to 1863
¹⁰⁴ Ibid., 1865 and 1868.

Here The reasons advanced for these stock dividends were as follows:--

(1) This \$5,764,600 was represented by an actual cash investment in the property, though received through operations of the Land Department.

(2) From 1856 to 1867, the shareholders had made up annual deficits in operation, not chargeable to capital, to the extent of \$1,506,285.55,

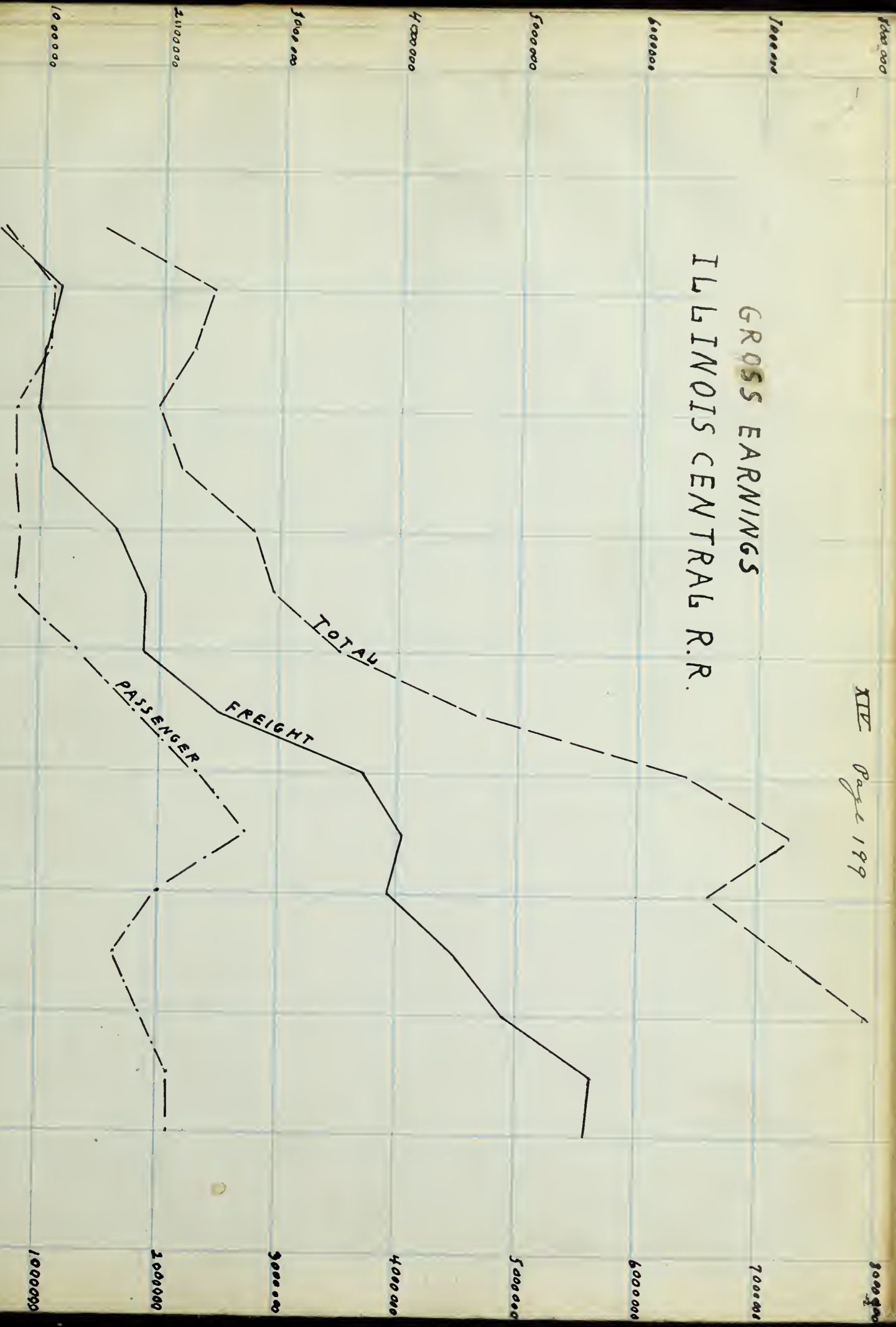
and the stock was considered a repayment of these advances. (3) Some of the shareholders for as long as twelve years and others for shorter

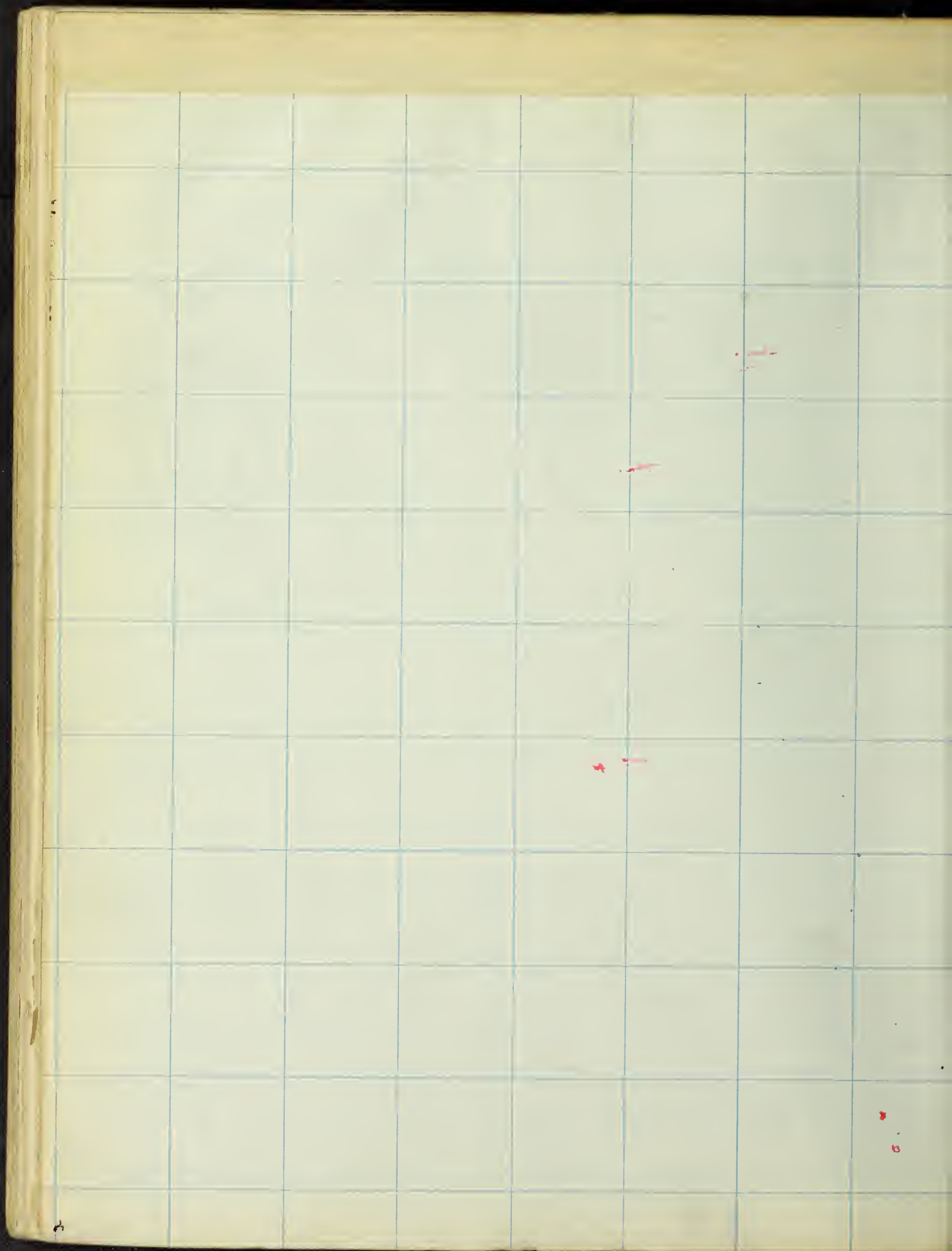
THE STOCK DIVIDENDS JUSTIFIED periods, had invested money in the stock of the company, for which they had received practically no remuneration and naturally, they desired some compensation for this lost interest. ¹⁰³

While the last two items were important, they were more than compensated for by later indirect rewards. In 1864 the stock was placed on a ten per cent basis and dividends continued at that rate for ten years. Furthermore, the stock dividends were enormously valuable. In 1863, 1865, and 1868, the lowest prices reach in August, the months in which the stock was received, were \$100, \$123, \$143 respectively. ¹⁰⁶ For the shareholder of 1862, this represented a bonus of 29.6% of stock, worth \$36.30 per share at current market quotations. For all the stockholder the value of the stock dividends amounted to \$7,069,756.90, as against an alleged loss of interest of \$1,506,285.55. Further dividends and stock rights on this additional stock may be ignored as they would have accrued anyway, and the same dividend would have been distributed over a smaller number of shares. There was nothing wrong in the stock distributions, the amounts were comparatively small, and a cash equivalent had been received in each case in an indirect way, but, nevertheless, these three dividends must be regarded as contrary to the conservative ^{ordinary} policy pursued by the Illinois Central.

105 Annual Report, Illinois Central Railroad, 1855- to 1867; ^{Fisher} Report, of the ~~Fisher Committee of 1858~~, Railway Times, Nov. 7, 1858; Report of the Committee of English and Dutch Stockholders, 1877. 21
106 Compare quotations on Illinois Central securities, 1860 ff. pp. 208-7 chart.

GROSS EARNINGS ILLINOIS CENTRAL R.R.





In addition to the three stock dividends the shareholders received good cash dividends ~~from~~^{after} 1863 on. Up to that year four per cent interest was given on full paid stock; ~~in 1863~~¹⁸⁶³, in the second half of the ~~year~~¹⁸⁶³, a semi-annual dividend of four per cent was declared; and in the following year an annual dividend of ten per cent was made, payable on all stock outstanding, including the scrip distributed prior to that time.¹⁰⁷ This was continued until 1874. In 1864 and 1865 this ten per cent dividend was equivalent to 10.8⁷, from 1866 to 1868 to 12^{per cent}, and from 1869 to 1870 to 15^{per cent}, on the actual cash invested by the shareholders.¹⁰⁸⁻² During this period, the Illinois Central stock was distinctly a good investment, as evidenced in a striking manner by the stock quotations. In July, 1868, the high mark of 160 was reached, but this included dividend rights.¹⁰⁸ Thus, from 1863 to 1870, the shareholder received on an investment of \$100, a return of \$106.30 (including cash and stock dividends and rights), or 15.18^{per cent} a year. Moreover, at the end of this period his stock was worth forty dollars a share more than in 1860. This certainly was a handsome return on such a safe investment.¹⁰⁹⁻⁴

Nor was there any question about the justification of these dividends from the standpoint of earnings, other than the matter of the wrong distribution of land office receipts referred to above. Commencing with the Civil War, earnings, both gross and net, increased at a phenomenal rate. Not until 1871 was the company really able to handle the enormous business forced upon it, and although the larger traffic necessitated increased expenses, the net

¹⁰⁷ Annual Report, Illinois Central Railroad, 1863.

¹⁰⁸ Ibid., 1864-1870.

¹⁰⁹ Commercial and Financial Chronicle, August, 1868.

¹¹⁰ I.e., the sum of all the cash dividends, plus realization of stock distributions at August stock market quotations.

7209

Commencing with the Civil War, earnings, both gross and net, increased at a phenomenal rate. Not until 1871 was the company able to handle the enormous business forced upon it, and although the larger traffic necessitated increased expenses, the margin between the two grew larger instead of smaller from year to year. From a million and

GROSS EARNINGS a half in 1855 the gross earnings from operation GREW RAPIDLY FROM 1856-1870 steadily advanced until the maximum of eight million,

six hundred thousand dollars was reached in 1870. Part of this was due to increased mileage, but the receipts on the charter lines alone were seven million two hundred thousand in the final year.^{11,774.8} In the first

five years in which the road was in operation, the total earnings increased by approximately six hundred thousand dollars, ~~only~~ ^{about} only twenty

five per cent. This slow growth was caused by the panic of 1857 and the crop failures in succeeding years. During this time passenger earnings actually decreased.^{112 773} Then, beginning with the second year of the

war, and continuing until the close of the decade, there took place a remarkable traffic development, with a corresponding growth of revenue.¹¹³

In the eight years from 1862 to 1869 freight earnings grew from one million, nine hundred thousand dollars to five millions, six hundred

thousand, or one hundred and ninety per cent. On the other hand, the ^{receipts of} passenger department ^{increased only} made the much slower growth of ¹¹⁴ sixty one per cent.⁸

As a result, freight was responsible for four fifths of the revenue in 1870, as against less than half in 1855.^{115 6}

¹¹⁶ Annual Reports, Illinois Central Railroad, 1855-~~to~~ 1870, incl.

⁸ ~~Ibid.~~

¹¹² Ibid., 1855-~~to~~ 1862.

¹¹³ Ibid., 1862-~~to~~ 1870.

¹¹⁴ Ibid., 1855-~~to~~ 1870.

¹¹⁵ The following table shows the proportion of freight, passenger and miscellaneous revenue in 1855, 1862, and 1870: ~~a year indicated~~

	Percent 1855	Percent 1862	Percent 1870
Freight	40 ⁴	54 ⁴	65 ⁴
Passenger	47 ⁴	37 ⁴	24 ⁴
Miscellaneous	13 ⁴	9 ⁴	11 ⁴

As noted in ¹¹⁶chapter v, ¹¹⁷average rates per ton-and pas-enger-mile were actually higher in 1870 than in the period immediately preceeding the Civil War. Pas-enger rates were the most peculiar in this respect and were practically twice as great in the last year of the decade as in 1857.¹¹⁸ The average freight charges on all goods ~~were~~ ^{were} three mills per ton-mile higher in the later year than in 1859. In general,

BOTH FREIGHT AND PAS-ENGER RATES HIGHER IN 1870 THAN IN 1857-1860 through rates declined during the period, and local rates increased, but there were important fluctuations caused by special conditions.¹¹⁹ While rates were well

maintained the total number of ton-and passenger-miles more than doubled, permitting the rapid increase in revenue noted above.¹²⁰ However, the currency inflation of the Civil War period brought about such a change in the value of money that a comparison of the years from 1862 to 1867 is almost worthless.¹²¹ Moreover, the character of tonnage and length of haul changed from year to year, and this cause alone prevented a correct estimate of actual rate movement.¹²²

- ¹¹⁶ Chapter V, page ^{see also} ; Annual Report, Illinois Central Railroad, 1855-to 1870.
- ¹¹⁷ Ibid.
- ¹¹⁸ Ibid., cf. Chapter v, page
- ¹¹⁹ Ibid.
- ¹²⁰ Cf. Bogart, Economic History of the United States, chapter xxiv, especially pages 339, 340, 341; Mitchell, History of the Greenbacks; Fite, Agricultural Development of the West during the Civil War, Quarterly Journal of Economics, XX, 259-278; chapter v, pp.
- ¹²¹ Statement of tonnage given in Annual Reports, Illinois Central Railroad, 1855-to 1870. Only isolated tariffs and the average rate per ton or passenger mile are available for comparison.
- The influence of the inflation of the currency during the period from 1862 to 1870 is quite important. An examination of the charts in this chapter and chapter v show a rapid increase in all prices and charges given there, the rise being especially marked in 1864 and 1865. However, it would be unfair to assume that revenues and expenditures rose in direct proportion to the inflation of the currency in these years. Many payments were made on long term agreements, and others, such as wages, cost of fuel, etc., did not rise with the general rise of gold.

MILES

XV Page 200

AVERAGE DISTANCE TRAVELED BY ONE TON OF PASSENGER -----
AVERAGE NUMBER OF PASSENGERS IN TRAIN -----
AVERAGE NUMBER OF REVENUE TONS OF FREIGHT IN TRAIN -----
RECEIPTS PER PASSENGER TRAIN MILE -----
RECEIPTS PER FREIGHT TRAIN MILE -----

RECEIPTS NO. OF
PER PASSENGER
TRAIN TONS OF
FREIGHT

350

100

140

300 400

120

250 120

100

200 100

80

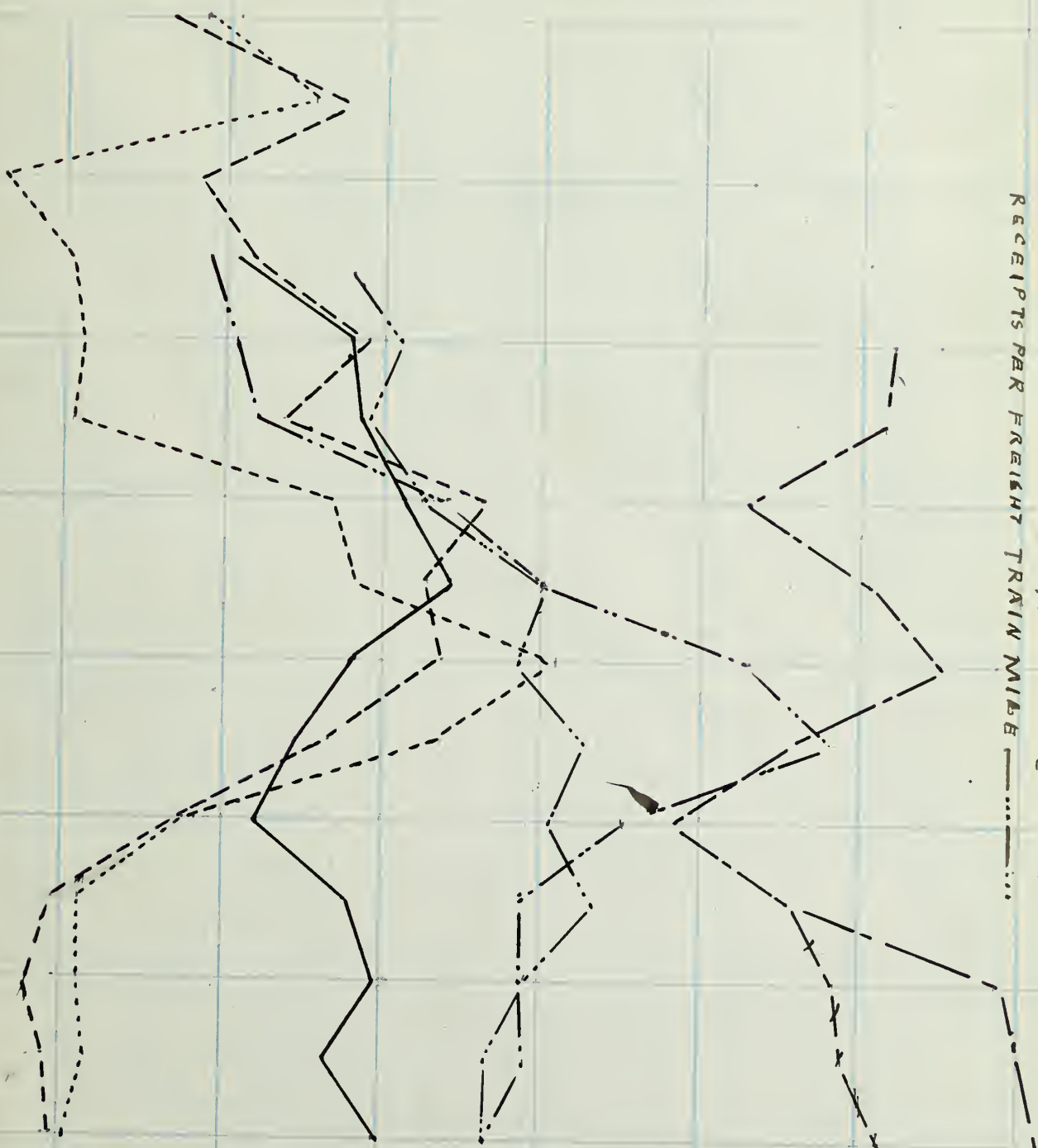
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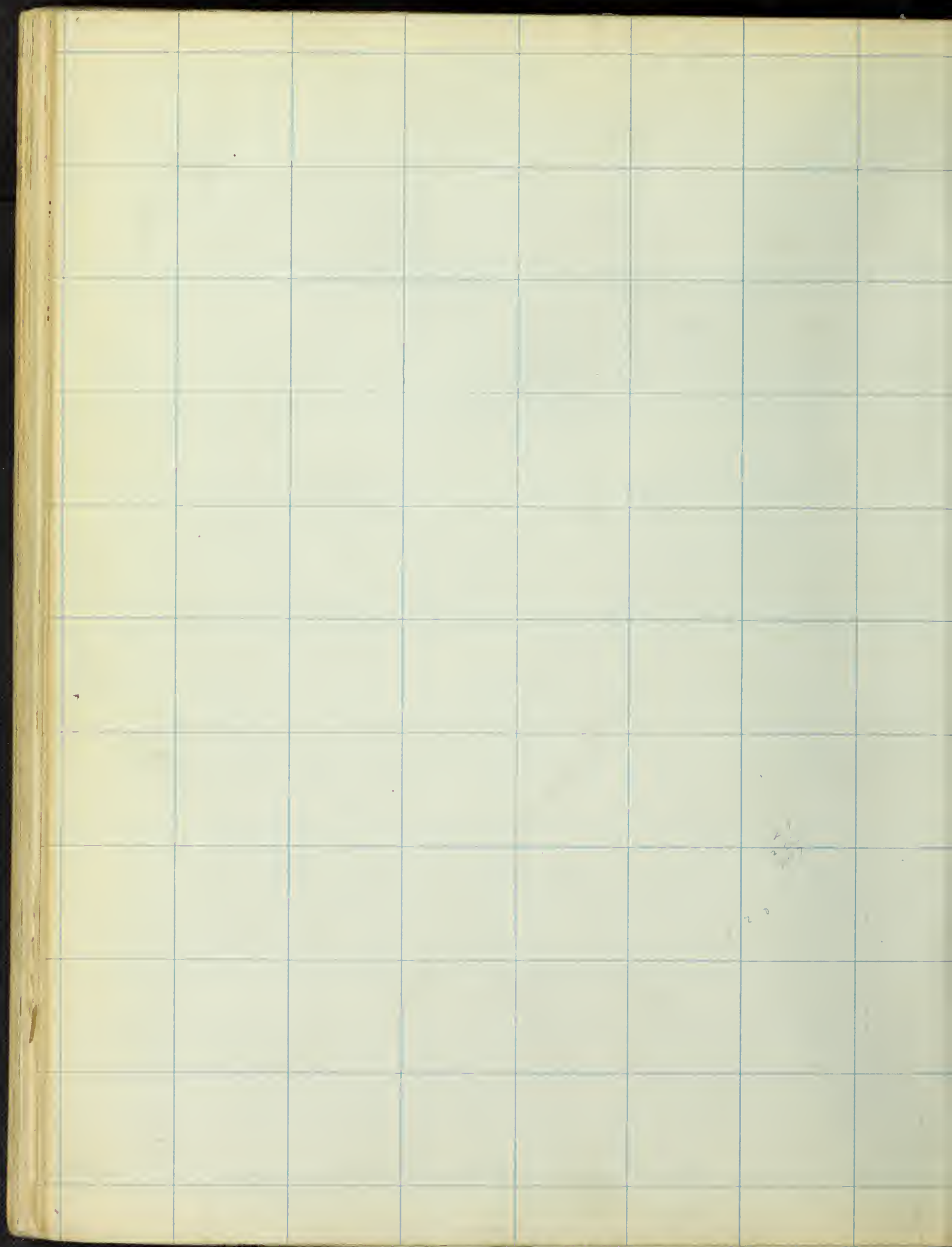
60

100 60

40

50 40





The large increase in earnings naturally allowed a larger amount of net income, but the proportion which each item of operating expense bore to the whole varied considerably during the period. As a general rule, maintenance of way expenses do not increase in proportion to the growth of traffic. In accordance with this principle, this class of

MAINTENANCE OF
WAY EXPENDITURES
INCREASED AT A
SLOWER RATE THAN
GROSS RECEIPTS

expenditures advanced more slowly than gross revenue.¹²² Moreover, the apparent growth of maintenance of way charges is somewhat exaggerated. (1)

In 1855 and 1856, when maintenance expenses were below five hundred dollars per mile, the road was new and heavy repairs were unnecessary.¹²³ (2) Ten or fifteen years later, large expenditures charged to maintenance really belonged to capital and the former account should be reduced accordingly. ⁸

Other fixed operating charges, such as cost of freight and passenger stations, increased in about the same proportion as earnings. The increase in the largest item, station expenses, was affected by the

OTHER FIXED OP-
ERATING CHARGES
INCREASE IN PRO-
PORTION TO IN-
CREASE IN REVENUE

advance in wages following the Civil War, and by the rapid growth of tonnage at the terminals, necessitating a proportionate increase in employees.¹²⁴

On the whole, though, fixed or semi-fixed operating expenditures increased at a slightly smaller rate than earnings or general operating charges.¹²⁵ ***

¹²² Annual Report, Illinois Central Railroad, 1855-1870.

¹²³ Ibid.; maintenance of way charges rose from \$450 per mile in 1855 to \$1500 per mile in 1870, although the earnings per mile advanced from \$2500 to \$8100.

⁸ Cf. page infra.

¹²⁴ Immediately after the war employees in the railroads, as well as in other industries, obtained large increases in wages, or rather retained their wages on the same nominal basis in spite of the appreciation of the currency.

¹²⁵ By fixed or semi-fixed charges is meant those items which relate only indirectly to actual train movement. For instance it costs little more to maintain a railway station whether one thousand or three thousand persons use it a day. Cf. treatment of this subject in Johnson, American Railway Transportation, pp.

Continued on page 202.

Maintenance of equipment and other items partly dependent on growth of traffic, remained nearly constant from 1856 to 1863; more than tripled in 1864 and 1865; continued approximately the same to 1867;

MAINTENANCE OF EQUIPMENT EXPENSES INCREASE AT SAME RATE AS GROSS REVENUE and then decreased per mile with the addition of the Iowa lines.¹²⁶ On the whole, these items increased at a slightly greater rate than all operating expenses and gross earnings. Repairs to equipment per locomotive or car followed the same lines as the total for this account and at about the same rate of increase.¹²⁷

The last account, conducting transportation, including freight and passenger train expenditures and claims for loss and damages, increased entirely out of proportion to the growth of traffic. Either from lack of equipment, poor facilities, improper methods of operation, or excessive traffic, or from all combined, the actual cost per ton of handling freight in 1870 was much greater than in 1859. This is shown in the following table:—

CASE COST OF TRAIN OPERATION PER FREIGHT-TON OR PASSENGER MILE.

	1859	1870
Passenger	3.7 mills	9.9 mills
Freight	1.3 "	2.6 " ^{8.128}

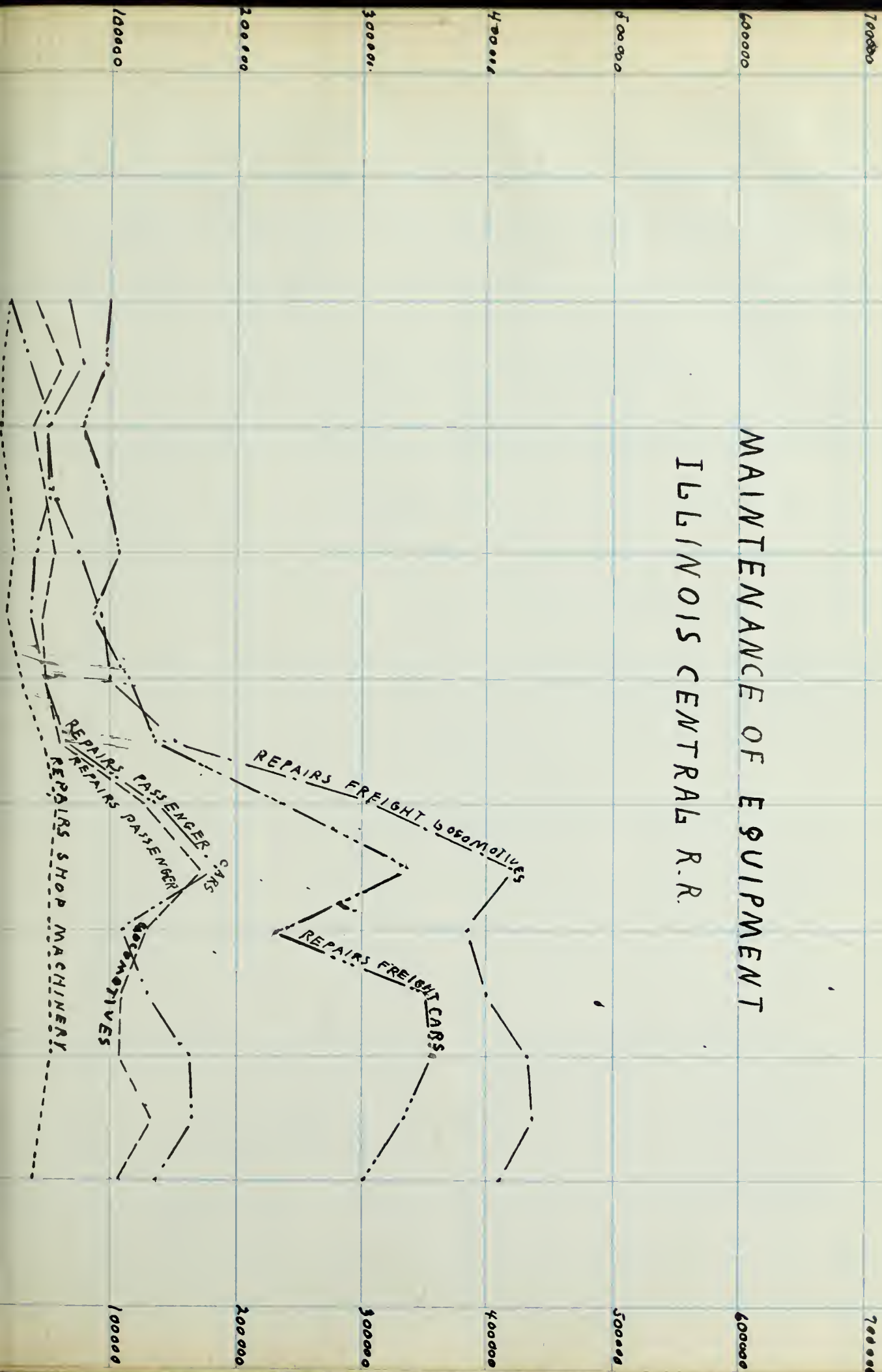
¹²⁶ Annual Report, Illinois Central Railroad, 1855-56 1870.

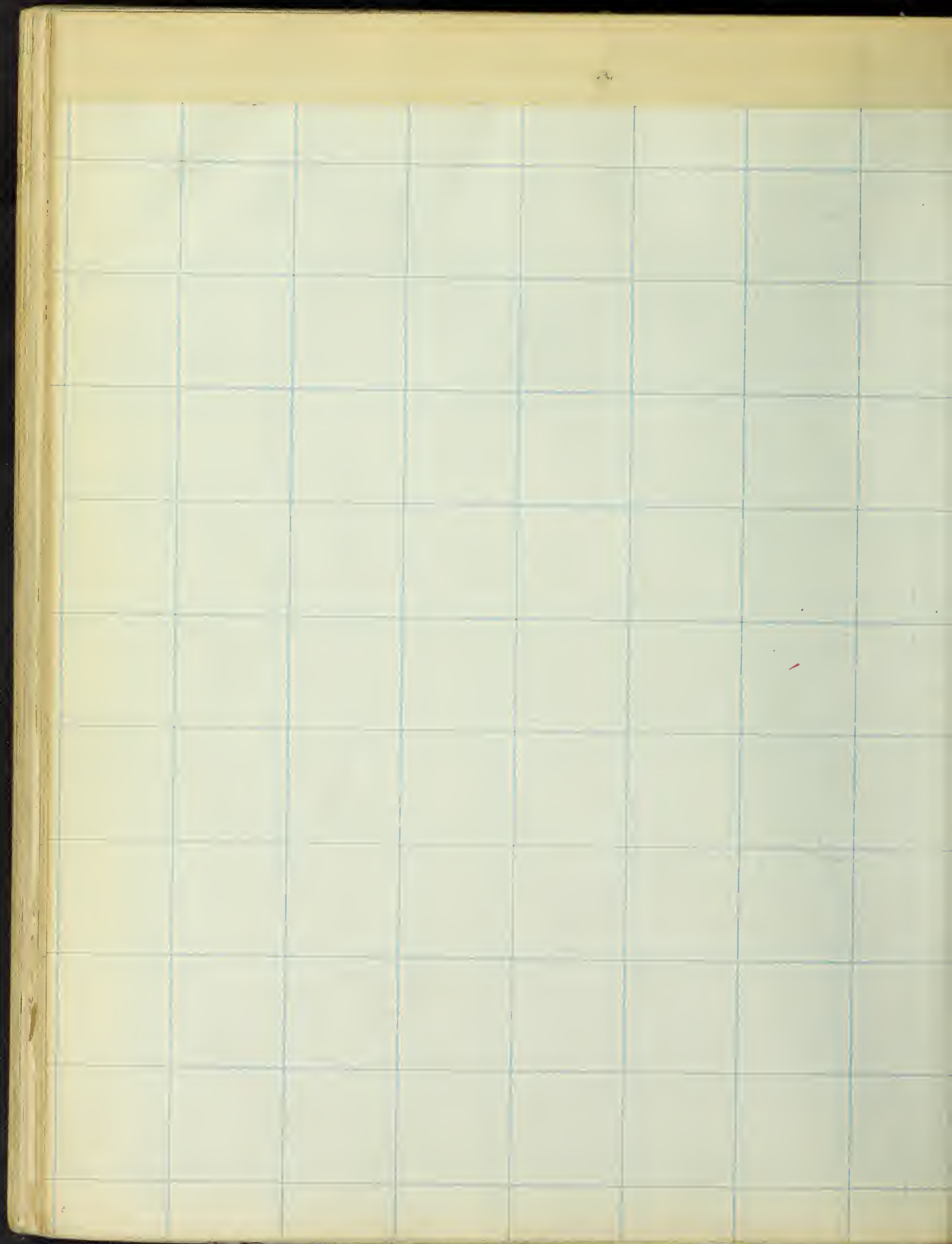
¹²⁷ Ibid.

¹²⁸ Ibid., 1859, and 1870. The detailed expenditures for wood or coal, salaries of enginemen, trainmen, etc., lubricants and other charges are given in the respective annual reports; also for each individual engine on the road.

~~Continued from page 201.~~ Prior to about 1880 the railroads of the country were unable to bring about important economies in the actual carriage of freight. On the other hand, the cost per mile for maintenance work increased much slower than general expenditures and the cost per unit of freight or passenger service for this class of charges. As a result, the rates could be reduced or the profit per ton increased without a lowering of the cost of conducting transportation.

MAINTENANCE OF EQUIPMENT ILLINOIS CENTRAL R.R.





The effect on cost of operation was quite important. The total for this account increased from \$1200 per mile in 1855 to \$4700 in 1870, but ~~the operating ratio~~ decreased from 59.2% in 1856 to 54.7% in 1870. ~~of gross receipts.~~¹²⁹ The earlier year, as noted above, was somewhat exceptional and the percentage of operating charges to earnings remained about the same during the period. The proportion of operating expenses to gross earnings was much smaller than is now supposed consistent with good maintenance of the railroad, but in 1856-1870 most of the traffic was high class freight with high charges per mile, and this allowed a much lower operating ratio on the Illinois Central.¹³⁰ Then, so-called fixed or semi-fixed charges, such as maintenance of way and equipment, constituted a much larger proportion of the gross earnings than is now usual on a road with similar earnings and this permitted larger per mile expenditures.¹³¹ Moreover, the higher rates per ton mile and small volume

¹²⁹ Annual Report, Illinois Central Railroad, 1855-1870.

¹³⁰ That is, for the same amount of gross revenue the expenses of transporting, say, a thousand tons of merchandise and an amount of coal which yields an equal revenue, would be much less for the former than for the latter.

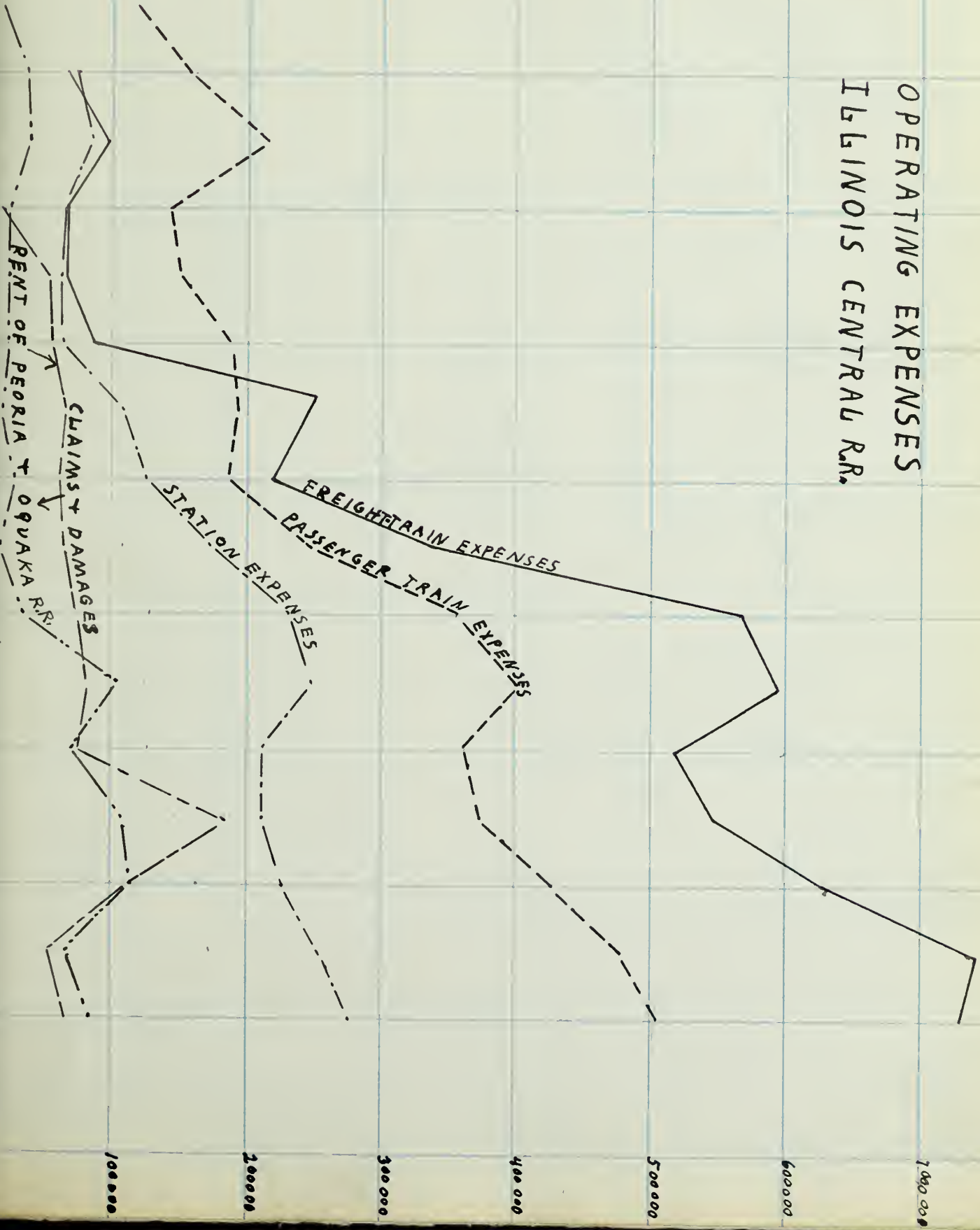
¹³¹ With the large amount of low-grade freight now handled, the cost of conducting transportation often amounts to thirty or forty per cent of the gross revenue.

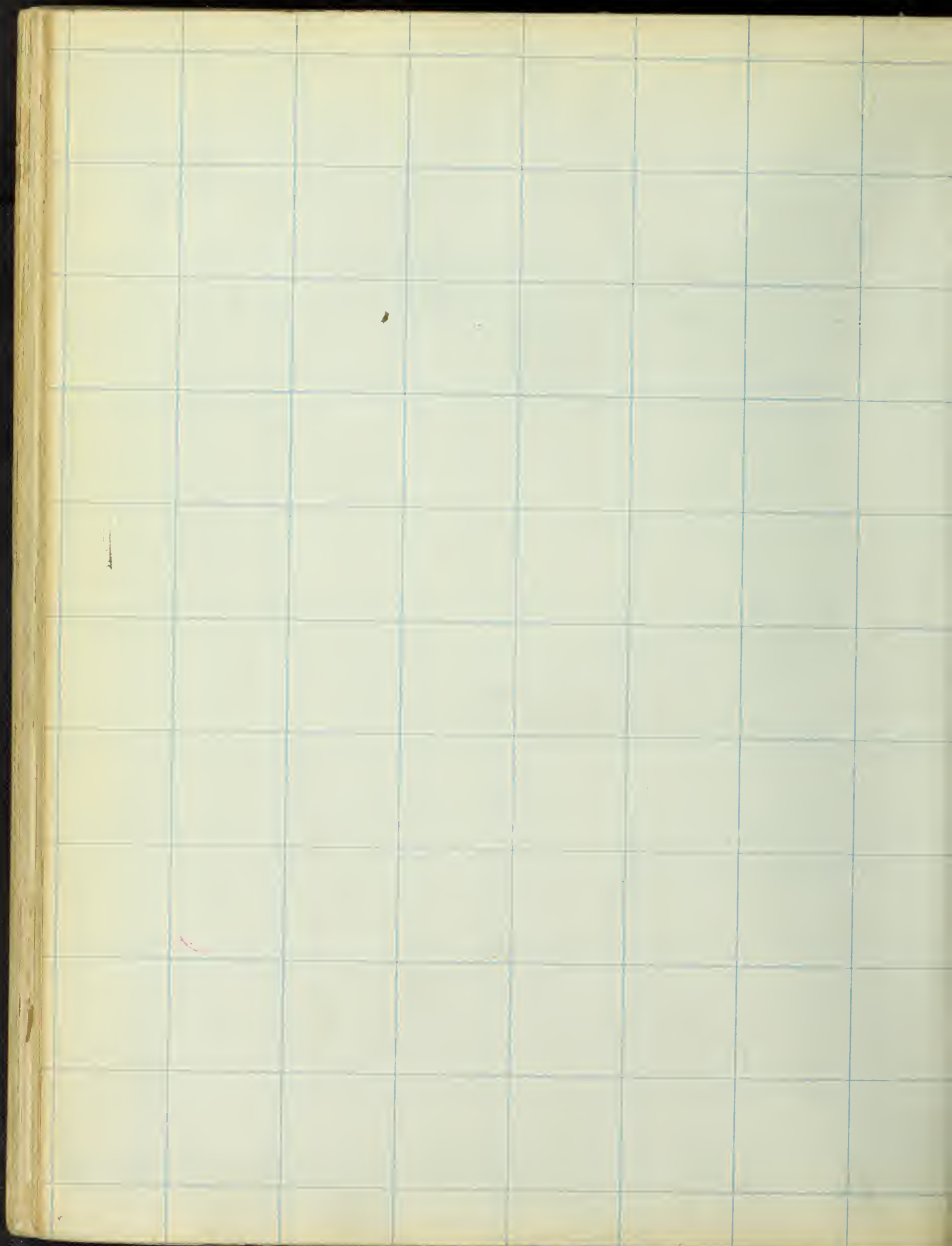
The following table gives the results of three locomotive test trips take over the Illinois Central, in 1858 and 1906;

	#1 (average)	#2 (average)	#3 (average)
Date	May, 1858	August, 1858	December, 1906.
Fuel	Coal	Wood	Coal
Route	Champaign to Chicago		Champaign-Centra
Tonnage	380	365	1131
Ton miles	49,400	47,450	138,100
Mi. Per Hour	15.47	16.16	20.60
Cost of fuel	\$6.45	\$14.00	
Cost of Fuel	4.58¢		
per mile	5.15¢	10.92¢	

(This first test is given in the annual Report for 1858; the second test was one made by the University of Illinois Railway Engineering Department, December 6, 1906.)

OPERATING EXPENSES
ILLINOIS CENTRAL R.R.





COMPARATIVE COST OF TRAIN OPERATION, 1862 AND 1906.
(ILLINOIS CENTRAL RAILROAD)

	1862	1906
Number of freight train miles	1,705,670	17,209,387
" " pas 'gr " "	855,522	11,388,699
" " ton " "	2,561,192	37,888,182
" " ton " "	101,762,144	6,230,593,529
" " passenger " "	62,580,421	511,391,077
" " freight car " "	31,347,173	478,806,682
Av.No.tons per freight train	81.00	353.21
" " pas-grs " pssgr " "	73.10	43.27
" " freight locomotives	75.00	746.00 (est.)
" " passenger " "	37.00	260.00 "
" " freight cars	2,317.00	55,575.00
" " passenger " "	68.00	575.00
Freight cars per freight locomotive	30.90	
Passenger " " passenger " "	1.80	
Ton miles per freight locomotive	1,356,828	
Pas-gr. " " pas-gr. " "	1,691,362	
Freight train mi. per fr't "	22,742	
Pssgr. " " " pssgr"	23,122	
No.ton miles per freight car	43,819	112,111
" pssgr " " passenger car	920,300	889,377
" of miles per freight car a year	13,526	86,155
" " " " " " day	37.05	23.60
" " cars per freight train mile	26.60	27.14
Average load per freight car (tons)	3.20	13.01
" no. pssgr. cars per train mi.	4.00	
" " passengers per car mile	18.28	
TRAIN EXPENSES--Freight (Per ton mile)		
Service	\$104,934.48	.1030¢
Fuel	88,440.61	.0859
Oil & Waste	18,104.14	.0170
Other supplies	8,519.76	.0100
Total	219,998.99	.2160
Repairs Frt.Eng.	100,432.13	.0997
" " cars	101,985.97	.1000
" coal " "	13,774.73	.0130
Total	216,192.83	.2130
Miscellaneous		.0889 (\$5,543,341)
TOTAL		.2129
PASSENGER (per passenger mile)		
Service	62,249.79	.0990
Fuel	51,570.30	.0824
Oil & Waste	6,566.78	.0110
Other supplies	6,062.19	.0100
TOTAL	126,448.96	.2020
Rprs. Engines	49,635.44	.0790
" Cars	49,451.58	.10790
Total	99,087.02	.1590
Miscellaneous		.2520 (\$1,289,197)
TOTAL		.0129
		.2198
TOTAL	.3980	.8339
Gross Receipts per ton mile	1.9600	.5560
Expenses of train movement	.4660	.2198
Net receipts per ton mile	1.5000¢	.3362¢

(Figures for 1862 obtained from annual Report, Illinois Central Railroad, 1862; ibid., 1906, annual Report and Locomotive Performance sheet)

of tonnage did not necessitate a large number of locomotives or cars, and maintenance of equipment charges could be distributed over a much smaller amount of rolling stock than is now the case. As a result, maintenance charges per mile, locomotive or car, were reasonably high and, apparently, were sufficient to keep the roadbed and equipment up to the proper standard. From 1856 to 1862, inclusive, both maintenance of equipment and of roadway charges were low, but this did not result in depreciation of the property. *This conclusion is borne out by the following considerations:* (1) Most of the equipment was from one to five years old and heavy repairs were not as necessary as later.

PROPERTY KEPT IN
GOOD CONDITION
FROM 1856 TO 1862
DESPITE LOW MAIN-
TENANCE CHARGES

(2) The roadway was also new and the small number of trains passing over the tracks did not wear out the rails or affect the condition of the super-

structure. During these years rails, ties or bridge materials did not need replacement and labor on track was almost the only charge. Wages for efficient trackmen were low and moderate expenditures kept the permanent way in excellent condition. (3) The traffic was abnormally light and the cars and locomotives were worked only a part of the time. In fact, a considerable proportion of the equipment purchased in 1856 and 1857 was not used until 1862 and did not require extensive repairs.¹³²

Thus, the locomotive and freight car repair charges were distributed over a smaller number of units than the reports would indicate, and repairs on locomotives in actual use, considering the light service and their recent purchase, were fully as heavy as after the Civil War.¹³²

¹³² Annual Reports, Illinois Central Railroad, 1855-~~to~~ 1870. The cost of repairs to each locomotive is given in the annual reports. With the light traffic the average life of the ties, iron rails, and bridge materials used on the Illinois Central was at least ten years. As most of the track was not laid before 1854, no important replacements were necessary until about 1864 or 1865. Moreover the quality of all materials put in the road was first class and repairs were not as common as on other roads which were built with cheaper materials. Cf. Ackerman, Early Illinois Railroads, page 42.

From 1863 to 1870, the road was taxed to its utmost capacity and both roadbed and equipment depreciated rapidly. The demands upon the rolling stock were so great that proper attention to repairs was impossible, and consequently, much larger expenditures were necessary when shopped. This condition was aggravated by high cost of labor and sup-

DEPRECIATION OF PROPERTY
FROM 1863 TO 1870 GREATER
THAN IN THE EARLIER PERIOD
MAINTENANCE ACCOUNTS IN-
CLUDE ITEMS PROPERLY BE-
LONGING TO CAPITAL.

plies. The hard service had a similar effect on superstructure, rails and ties.

Moreover, beginning with the Civil War, an increasing amount of tie and rail replace-

ment was necessary on account of a larger number of trains and natural deterioration. Despite this large increase in the necessary maintenance charges the expenditures were more than sufficient to keep the property in first class condition, and the railroad was in much better working condition in 1870 than thirteen or fourteen years earlier. It is also reasonably certain that a considerable amount of money was expended on maintenance which a more conservative system of accounting would have charged to capital. ¹³⁴

¹³⁴ Annual Reports, Illinois Central Railroad, 1862- to 1870. Cf. ~~page~~
184, ~~supra~~, especially statement of directors.

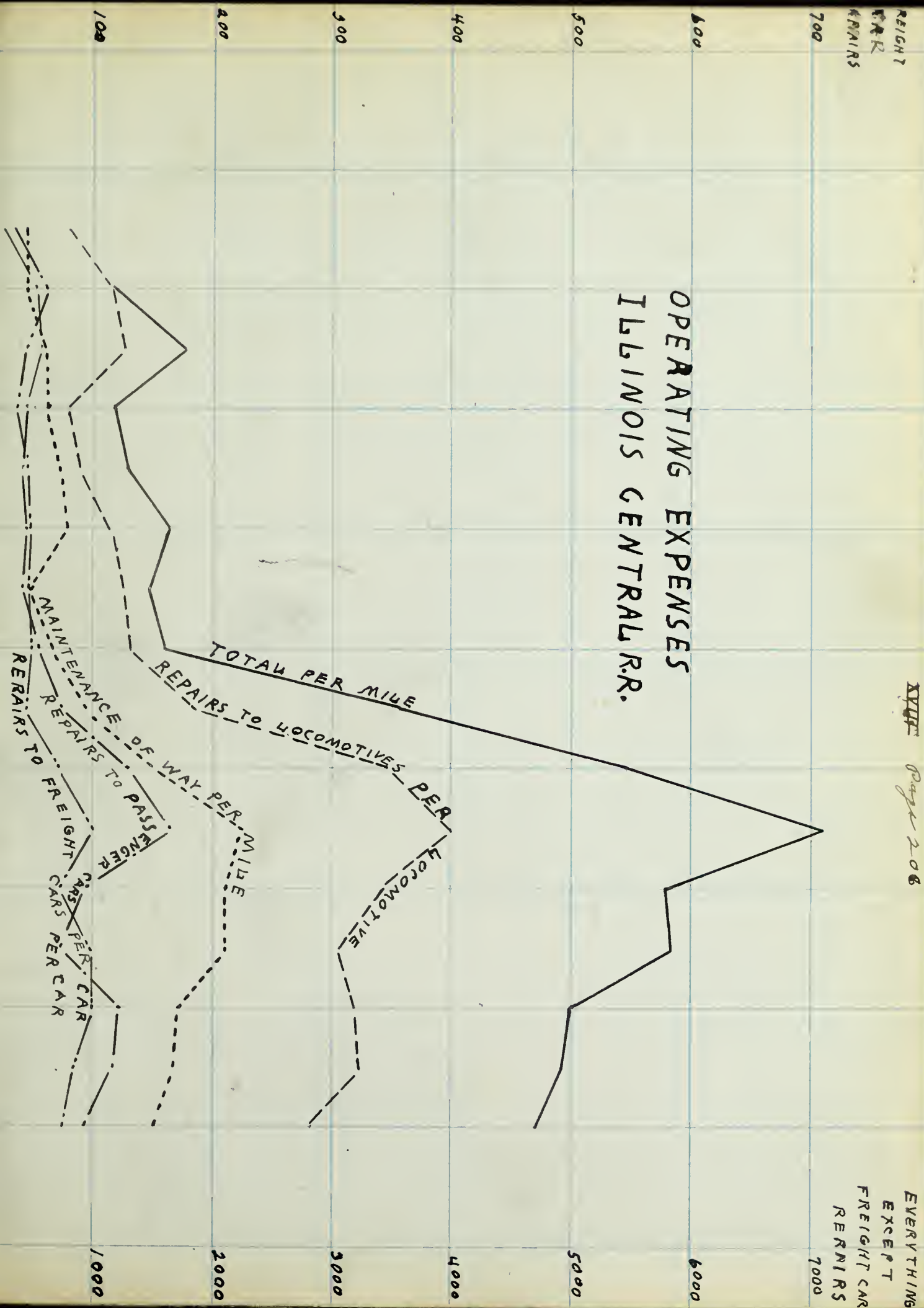
This matter of maintenance of the property is one which has involved considerable dispute. In the report of the Delegates appointed by the committee of English and Dutch stockholders, made in 1877, and in the President's special report of 1897, it is asserted that the property was allowed to deteriorate after the Civil War. The investigating committee undoubtedly viewed the property from the English standpoint and naturally expected to have the railroad kept in better condition than it was. The report of 1897 made a contrast of conditions in the latter year with earlier periods and there ^{was} an unintentional ~~in~~ bias against reporting the property in as ~~as~~ good condition as it really was. Moreover, the standards of maintenance have advanced very rapidly and the property has been built up to a large extent out of maintenance expenses. Furthermore, as stated in the text, the maintenance of way and equipment charges were very heavy, considering the amount of traffic, and it is difficult to see how the property could depreciate, provided reasonable care was exercised in the disbursement of the money.

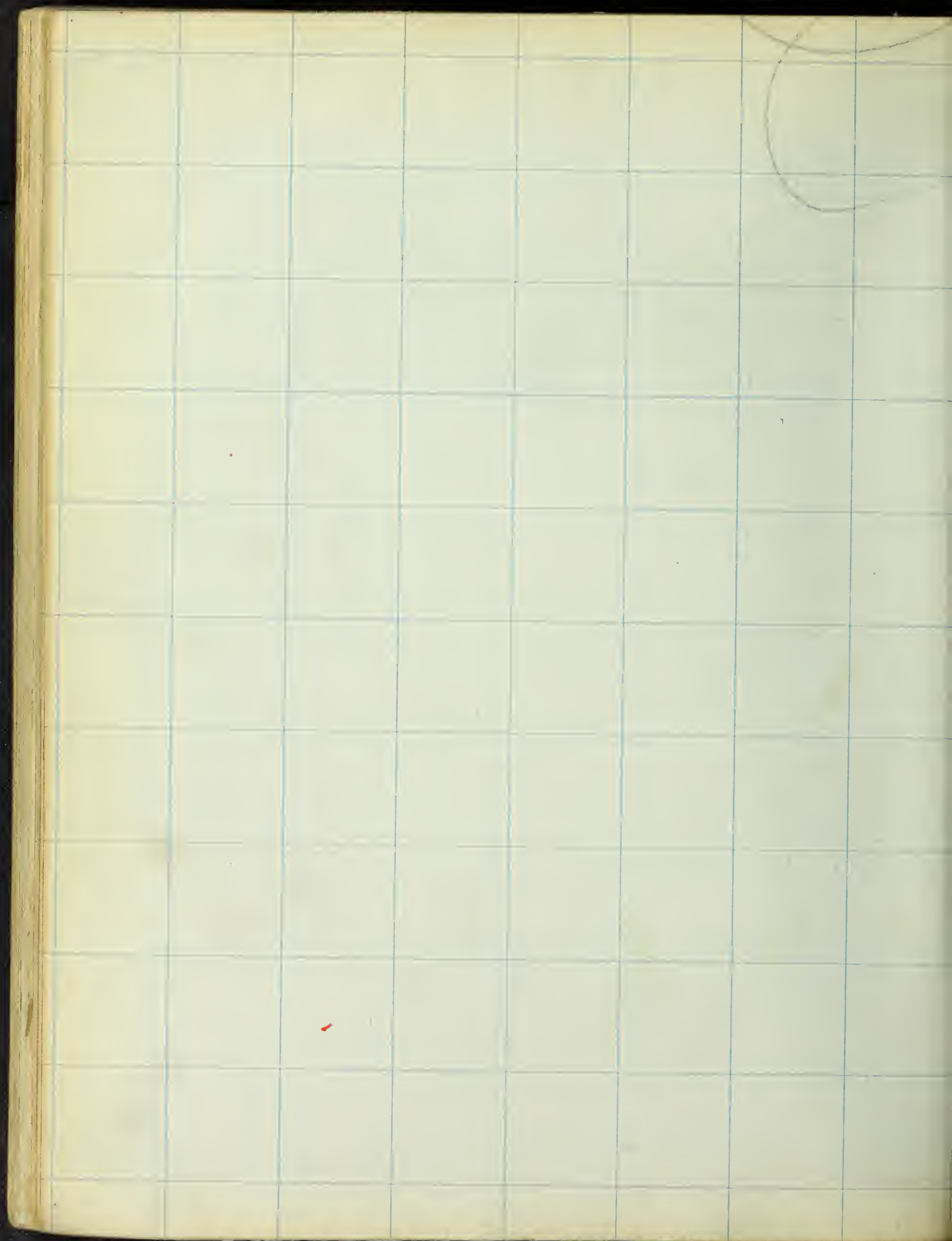
There was a very large number of people who were present at the meeting. The speaker was very interesting and the audience was very attentive. The speaker was very interesting and the audience was very attentive. The speaker was very interesting and the audience was very attentive.

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OPERATING EXPENSES ILLINOIS CENTRAL R.R.





In spite of the liberal operating charges, the net income during the period under discussion was large. Excluding rentals and taxes, the net income from operation increased from \$938,437 in 1856 to \$2,857,321.80 in 1870, or 204%, (but constituted only 32.9% of the gross receipts in the latter year as against 38.1% in the former.¹ This de-

crease in percentage was more than compensated for by the much larger aggregate of gross earnings and by net receipts from free and interest lands and

other sources.) The total net income, including miscellaneous items, advanced from \$1,250,000 in 1856 to \$3,550,000 in 1870, or 184%.² In the last three and a half years the net profit from operating the Iowa leased lines averaged between seventy and eighty thousand dollars a year.³

The growth of net earnings was accompanied by a steady decrease in fixed charges. In 1856, the fixed charges slightly exceeded the net revenue, and during the succeeding four years there were large deficits.⁴ During the remainder of the decade the difference between the two ac-

counts became much larger and in 1870 the directors presented the most favorable financial statement ever made to the directors until 1906 and 1907, as seen in the

following table:--

FIXED CHARGES AND NET REVENUE, 1870

Net revenue	\$3,471,188.34	100%
Fixed charges, including exchange on foreign payments, etc.	622,053.28	17.9%
Applicable to dividends	2,849,135.06	82.1%

After 1861 there was a surplus of net earnings above fixed charges and by 1863 the amount was large enough to justify the directors in de-

¹ Annual Reports, Illinois Central Railroad, 1855- to 1870.

² Ibid.

³ Ibid., 1870.

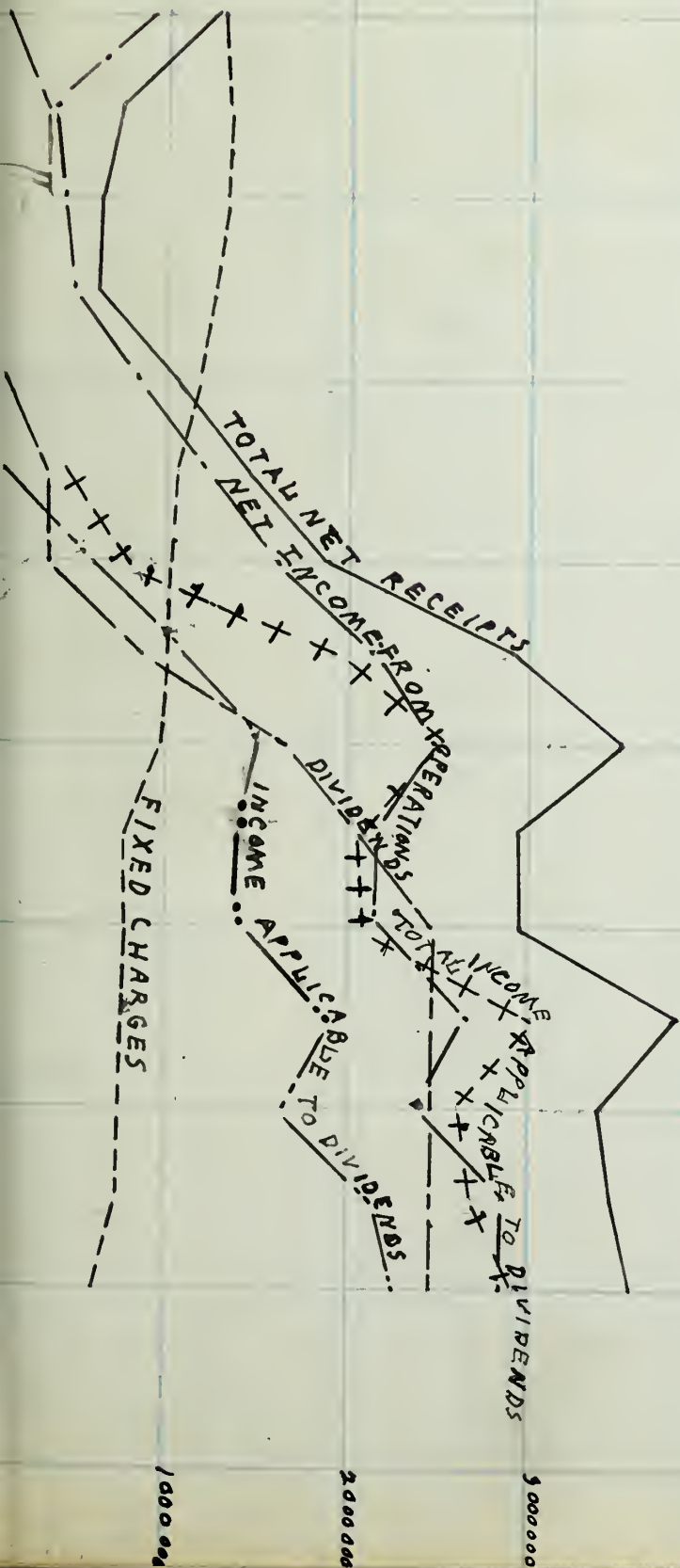
⁴ Continued on page 208.

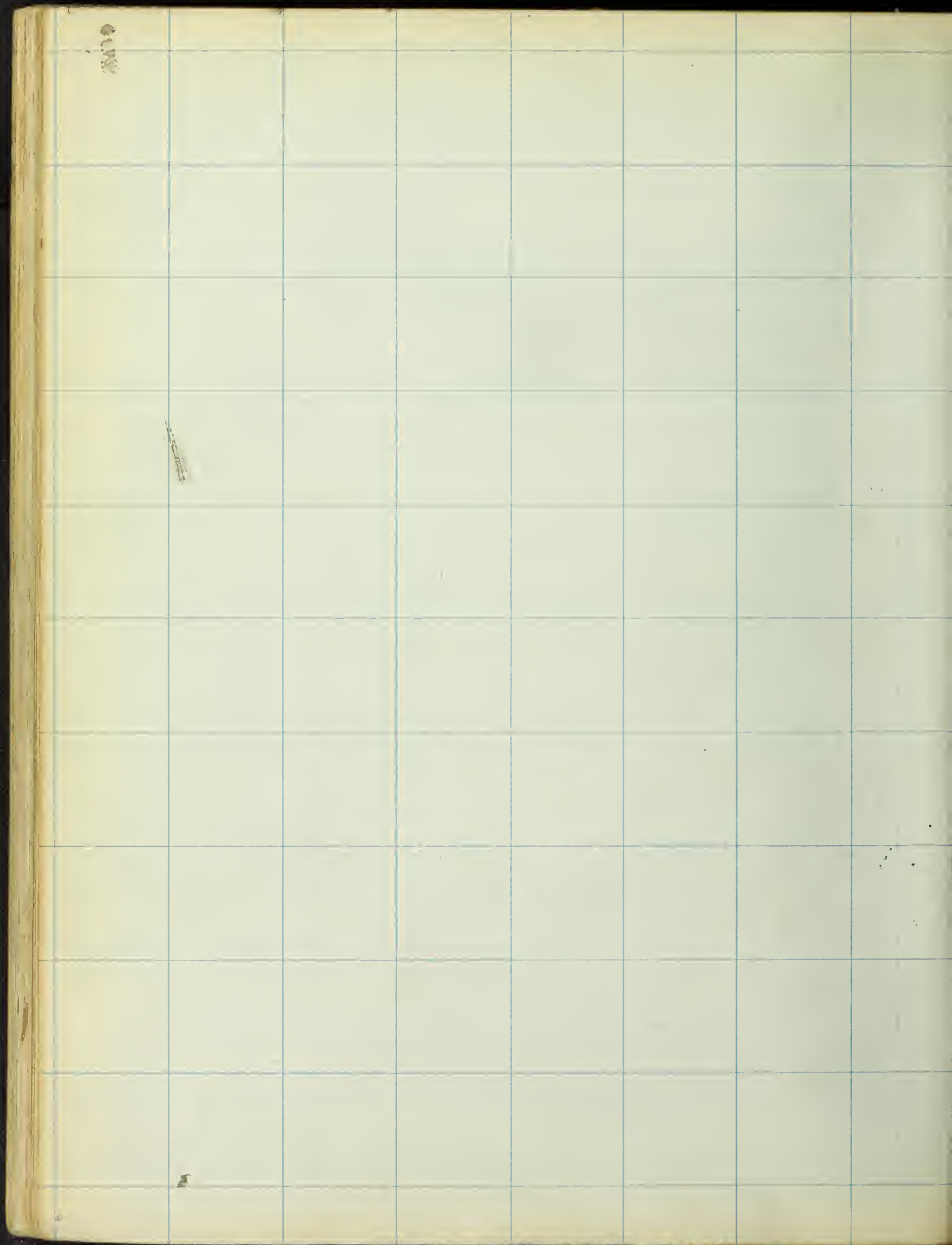
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APPLICATION OF INCOME ILLINOIS CENTRAL RR.





semi-annual, clearing a regular/four per cent cash dividend, instead of the four per cent interest on fully paid stock given before that date.¹³⁷⁻¹ In 1868 the annual dividend rate was increased to ten per cent and was made payable on all stock outstanding, including the scrip distributed prior to that time.¹³⁸⁻² This rate was continued until 1874 and was equivalent to

SEMI-ANNUAL CASH 10.8% in 1864 and 1865; to 12% from 1866 to 1868 and
DIVIDEND OF FOUR
PER CENT IN 1863 to 13% from 1869 to 1874, on the actual cash in-
AND 1864 FIVE
PER CENT 1864-75 vested by the shareholders.¹³⁹⁻³ During the period, the

Illinois Central stock was distinctly a good investment, as evidenced by the stock quotations, which, in July, 1868, reached a high mark of 159.¹⁴⁰⁻⁴ Including cash and stock dividends and rights, the shareholder received from 1863 to 1870, on an investment of \$100, a return of \$106.30, equivalent to 15.18%^{percent} a year.¹⁴¹⁻⁵ Moreover, at the end of this time his stock was worth forty dollars a share more than in 1860.¹⁴²⁻⁶ This certainly was a handsome return on such a safe investment.

Now, as seen above, was there any question about the justification of these dividends from the standpoint of net earnings, other than the matter of wrong distribution of land office receipts.⁷ In only one

¹³⁷ Annual Report, Illinois Central Railroad, 1863. Cf. page 120, supra.
¹³⁸ Ibid., 1865; i.e., eight per cent in 1864 and ten per cent 1865.
¹³⁹ Ibid., 1863-1870; i.e., if the stockholder of record of 1862 had kept all stock distributions this would have been his return of per \$100 share.

¹⁴⁰ Ibid.; Commercial and Financial Chronicle, Volume 8, page 21. (Jan. 2, 1869). This includes "rights".

¹⁴¹ Cf. note #3

¹⁴² Commercial and Financial Chronicle, Volume 10, page 9. (January 7, 1871).

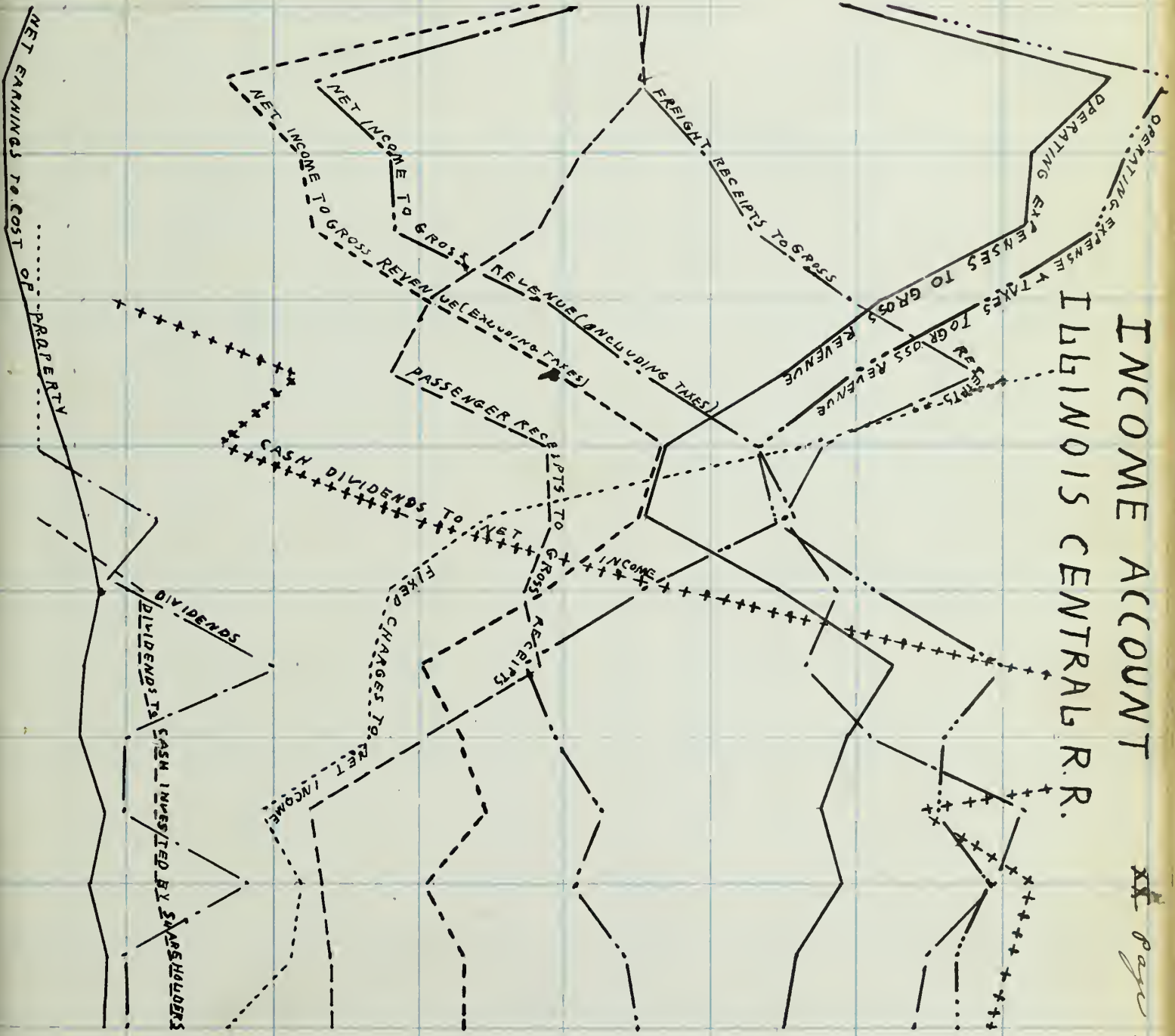
⁷ Cf. pages 194, 195, supra.

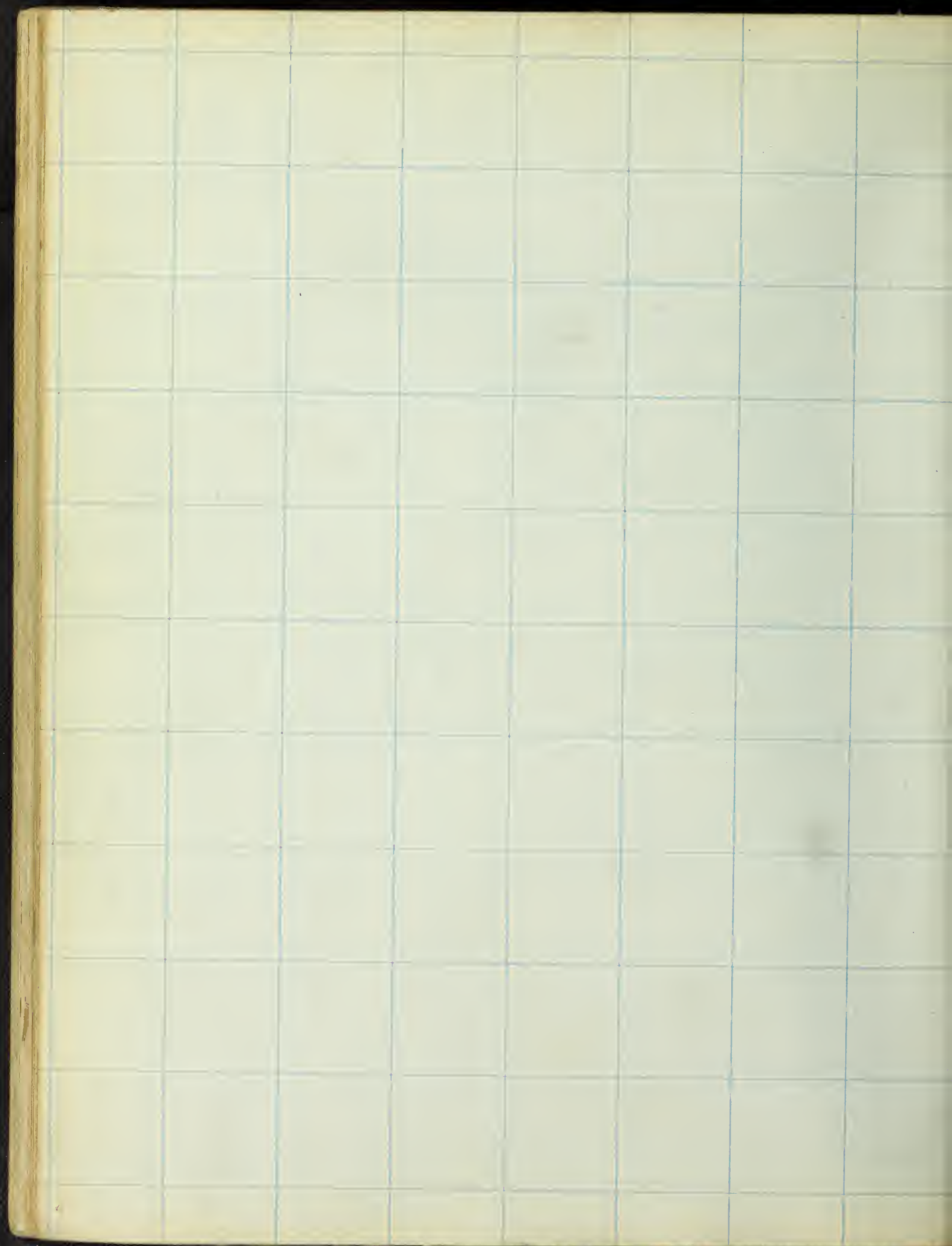
⁸ Continued from page 209. This is an apparent discrepancy between the figures given on page 207 and on previous pages. It will be noticed, however, that the net revenue reported on page 207 excludes taxes and rentals. On 203 operating expenses excluded taxes and rentals. In 1856 and 1857 the full seven per cent income tax was not paid the state. From 1867 to 1870 rentals and taxes include Illinois seven per cent tax, rental of Iowa lines, rental of Peoria and Oquaka, taxes on Iowa lines and miscellaneous taxes and rentals.

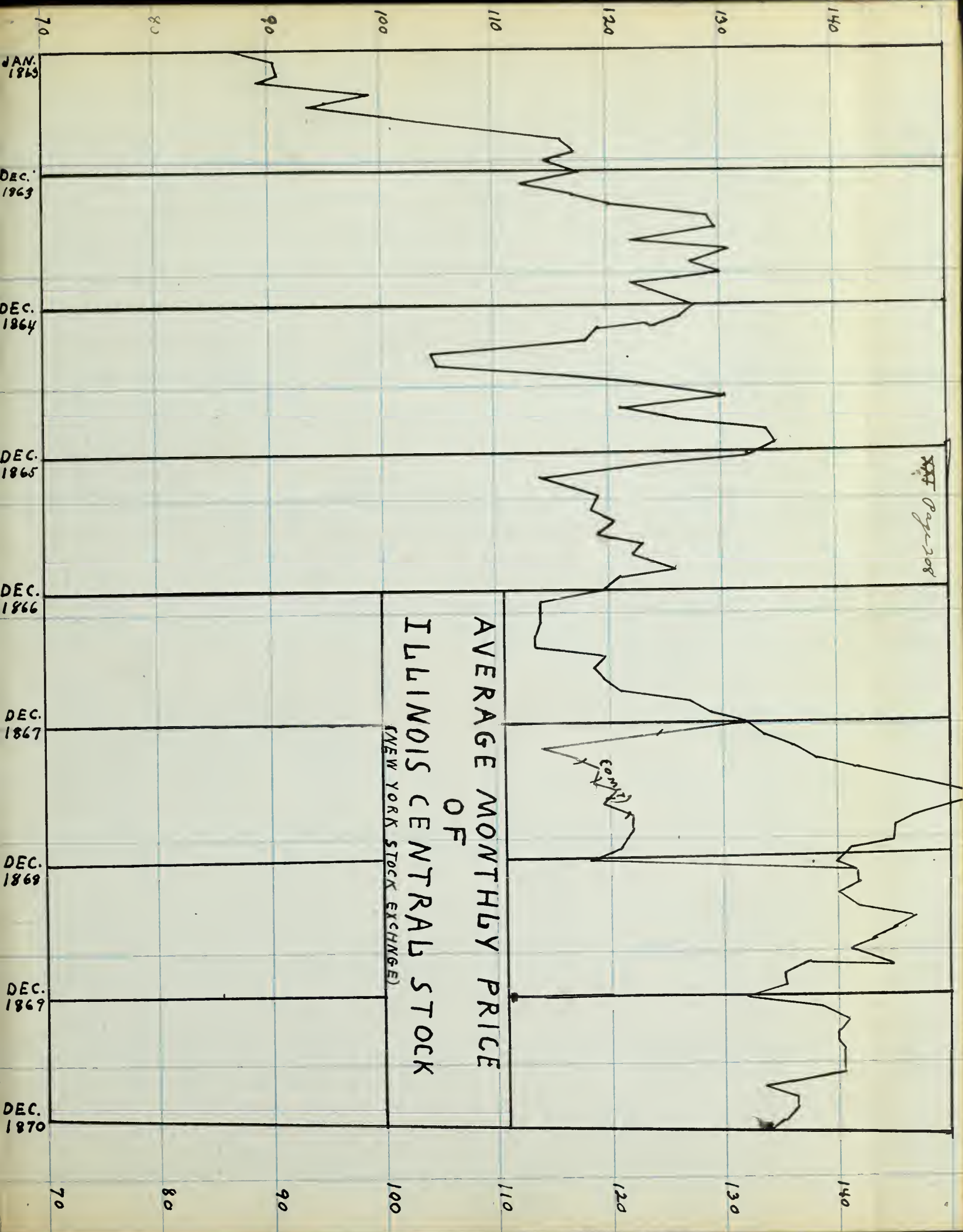
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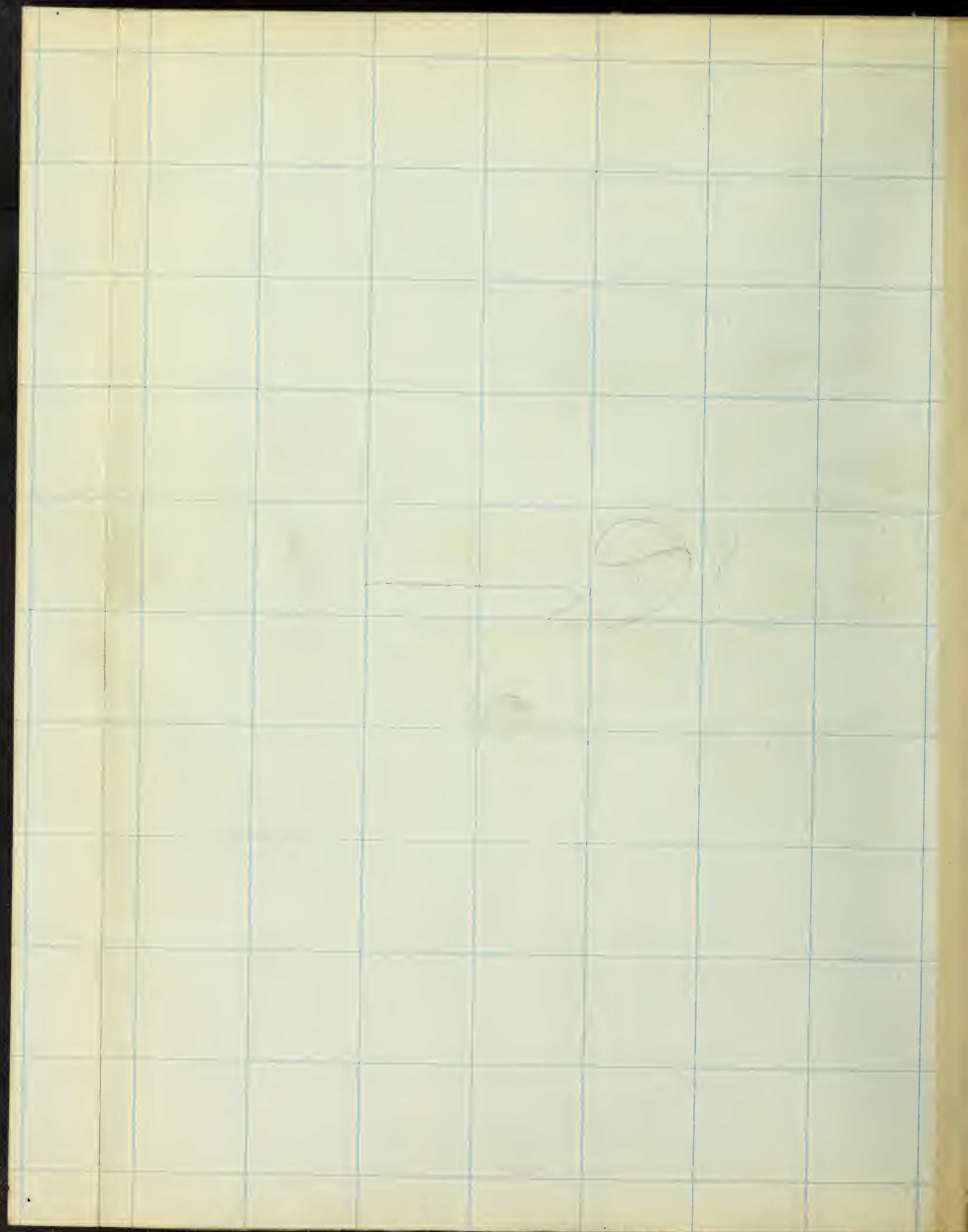
INCOME ACCOUNT

XXI page 208









year, viz. 1866, did the dividends exceed the revenue applicable to dividends and then to only a slight extent.¹⁴² In the other years, there was no question about the ability of the company to maintain the dividend. However, the directors did not always pursue a conservative course and expenditures from 1863 to 1870 were almost too near receipts for perfect safety. In 1870, the year when net earnings were the most satisfactory, the fund applicable to dividends amounted to only 11.44% against requirements of 10.43%.¹⁴³ Omitting receipts from the land de-

TEN PER CENT DIVI-
DENDS EARNED FROM
1865 to 1870, BUT
SURPLUS ACCOUNT
TOO SMALL.

partment, necessarily only a temporary source of income, the net earnings applicable to dividends ranged from 5.46% in 1866 to 8.66% in 1870.¹⁴⁴ Ac-

cording to the company's books, the high dividend rate was guaranteed by a large surplus, but this was merely a bookkeeping account and was not represented by available assets.¹⁴⁵ By paying, say nine per cent instead of ten per cent, a large cash surplus could have been accumulated which would have allowed a continuance of eight or nine per cent dividends over a much longer period.¹⁴⁶

Prior to 1870 the company pursued a conservative policy in regard to extensions involving any financial risk. From the completion of the road to the Civil War several traffic arrangements with connecting or branch lines were made, but in no case was the financial responsibility large. Bonds of the Ohio and Mississippi and Peoria and Oquaka, to the extent of approximately \$100,000 each, were purchased, but were not re-

¹⁴² Annual Report, Illinois Central Railroad, 1866.

¹⁴³ Ibid., i.e., 10% cash dividend and about 4% federal war tax. In other years the dividend and war tax was barely earned.

¹⁴⁴ Ibid., i.e., excluding receipts from the land department and miscellaneous sources of income.

¹⁴⁵ The surplus was obtained by adding all interest payments to cost of construction and depreciation on construction and free land bonds and deducting from it net receipts to 1863. This account was not only not represented by cash assets, but was incorrect.

¹⁴⁶ From 1874 to 1905 the dividends were reduced to a four to six per cent basis and the accumulation of a large surplus in 1870 might have improved this condition.

147
tained for any length of time.¹ No other important agreements were had except with the Dubuque and Sioux City Railroad Company. As stated in chapter iv, the Illinois Central, in 1867, leased the property of the Dubuque and Sioux City and its subsidiary lines, the Iowa Falls and

ILLINOIS CENTRAL
ENTERS INTO NO
IMPORTANT AGREE-
MENTS, EXCEPT WITH
THE DUB. & SIOUX
CITY AND ITS SUB-
SIDIARY COMPANIES

Sioux City and the Cedar Falls and Minnesota, for a period of twenty years, (the first ten years at 35% and the next ten at 36% of the gross earnings. No responsibility, beyond the risk of a loss from

working the lines at over 65% of the earnings, was incurred and the entire fiscal management was left in the hands of the lessee companies.³

In 1867 less than two hundred miles were in operation and the remainder was not completed until 1870.⁴ The Illinois Central gave indirect assistance to the Dubuque and Sioux City and other companies floating their bonds and the lease of the road undoubtedly advanced the value of both stock and bonds, but this aid did not involve the "Central" in any financial liability.⁵ In the three and a half years the lines were operated there was a small profit from the lease, aggregating nearly a quarter of a million dollars, in addition to the indirect benefits of increased traffic on the charter lines. Thus, up to 1870, the arrangement was of material advantage to the Illinois Central.⁶ }

147
1 Annual Report, Illinois Central Railroad, 1855 to 1862; Fisher Report, Railway Times, June 19, 1858.

2 Annual Report, Illinois Central Railroad, 1867; cf. page

3 Ibid.

4 Ibid., 1867 to 1870.

5 Ibid., 1867 to 1870.

6 Ibid., 1867 to 1870. A minimum rental of \$1500 per mile was guaranteed on the Iowa Falls and Sioux City lines, which was sufficient to pay all interest charges. A considerable profit was made off of the Dubuque and Sioux City proper, but the other lines were a constant loss. Cf. chapter iv, pages for statement as to reasons which induced the Illinois Central to lease the Iowa Falls and Sioux City and Cedar Falls and Minnesota.

The calendar year 1870 ~~closed on what~~ was the most successful year for the Illinois Central railroad ~~had had~~ to that time. Gross revenue was large, and the net earnings were sufficient to pay all fixed charges, a ten per cent dividend and provide a surplus of a quarter of a million dollars. * The financial policy pursued by the company in the construction and operation of the railroad had proved entirely satisfactory. Financial policy of the ~~Company~~ ^{Company} in the Construction and Operation of the Railroad proved to be entirely satisfactory ^{to the promoters and owners of the stock.} The construction work was carried on without serious financial difficulty, and after the first few years of operation the net earnings were all that could have been reasonably desired. The land grant was managed well and by 1870 had paid off most of the indebtedness. While the sanguine prospects of the promoters were not completely fulfilled the investors in the property were amply rewarded, as illustrated by the following table.

Total cost of construction, equipment, net cash assets and supplies, Dec. 31, 1870		\$36,242,203.82
Funded debt (net)	\$ 6,869,500.00	
Cash paid on stock (net)	<u>19,726,700.00</u>	<u>26,596,200.00</u>
NET SURPLUS		\$ 9,646,003.82

The balance sheet on December 31st, 1870 was as follows:--

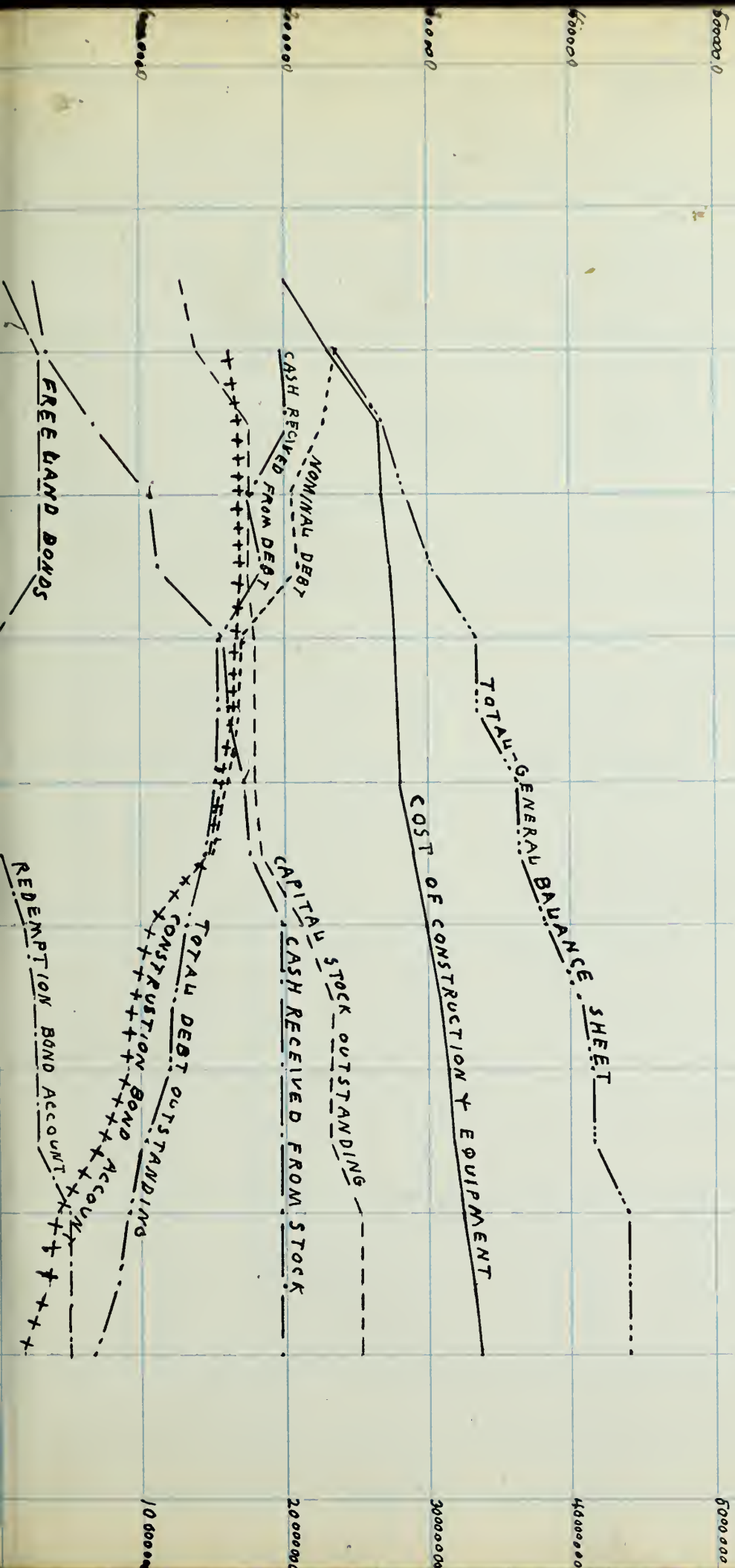
DEBTOR

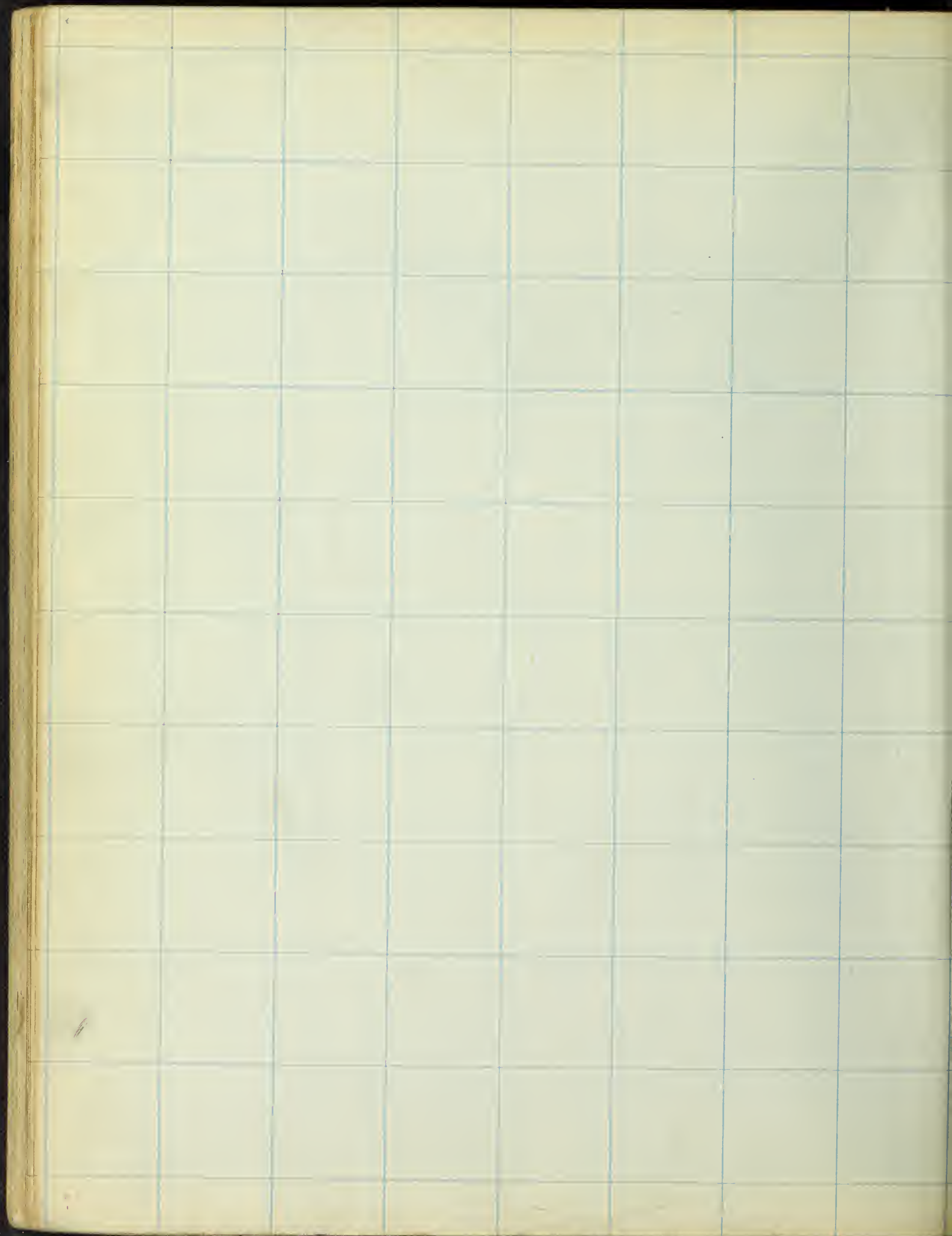
Permanent Expenditures	\$33,199,574.25
Interest and Dividend Account	\$12,090,000.00
Less avails of interest fund	<u>3,471,188.34</u>
	8,540,311.64
Net cash assets in New York and Chicago	1,840,090.55
Working stock of supplies	<u>749,665.56</u>
	\$44,329,642.00

CREDITOR

Capital Stock	25,280,240.00
Canceled bond scrip	16,640.00
Funded debt---	\$8,422,000.00
Less construction bd fd.	<u>1,552,500.00</u>
Bonds delivered Land Dpt	\$13,578,000.00
Less in hands trustees	<u>1,414,738.00</u>
TOTAL	\$44,329,642.00

CAPITAL ACCOUNT ILLINOIS CENTRAL R.R.





At the same time the affairs of the company were handled in a conservative manner, and only a part of this surplus, not quite six million dollars, was distributed to the shareholders in stock dividends. The remainder was invested in the railroad and added to the real value of the property.

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CHAPTER VII.

193.

[THE ILLINOIS CENTRAL IN 1870.]

The Illinois Central Railroad has always occupied a unique position among the railroads of the country. From the inception of the project it has been primarily a government enterprise. It was the first important railway project in Illinois, and for twenty years its construction was the ambition of the state and its citizens. Moreover, it was also fostered by the federal government. The first land grant ever given by Congress to assist in the construction of a railroad was given to the state of Illinois to complete this undertaking. The legislature turned over the grant to a private corporation and the Illinois Central railroad became the first important land grant railroad. Finally, the Illinois Central was the only company of any size in the Northwest or Upper Mississippi Valley that ~~followed~~ ^{crossed} the lines of latitude instead of longitude. The other great transportation systems of the country, the New York Central, Baltimore and Ohio, Pennsylvania, Erie, Northwestern, Burlington, and Rock Island, extended west from the Atlantic Seaboard or east from the Mississippi River. The "Central", on the other hand, was built to retain the commerce of the Mississippi Valley along north and south lines.

ILLINOIS CENTRAL
OCCUPIED UNIQUE
POSITION IN 1870

At the same time, though in this respect the railroad was similar to most of the large roads of the West, the Illinois Central was built through territory very thinly settled and was created with the definite object of developing the otherwise dormant resources of such region.

ILLINOIS CENTRAL
ALSO BUILT TO DE-
VELOP RESOURCES
OF CENTRAL COUN-
TIES OF ILLINOIS

In 1850 the central counties of Illinois were undeveloped, and the railroad was constructed through that part of the state in order to pro-

vide cheap transportation for their grain and live stock ~~and make them~~
~~an integral part of the commonwealth.~~ The land grant and special pri-
vileges given the company were merely the necessary inducement to ~~have~~
private capital ^{to} take up the undertaking.

From any view point, ~~that may be taken~~, the construction of the Il-
linois Central must be regarded as a success. After four successive
failures by the state itself and private individuals a group of Boston
and New York capitalists built the road without receiving one cent of
help from the state, other than the land grant and privileges granted
in the charter, and without throwing any financial liability upon the

CONSTRUCTION OF THE
RAILROAD A SUCCESS
FROM THE STANDPOINT
OF THE STATE, CON-
GRESS AND THE ROAD

government. The financial problems connected
with construction were met, and the enterprise
was carried through in a more economical manner

than was any other similar undertaking of the period. At the same time
the promoters ^{constructed} made the railroad according to the best standards of the
period. When finished it was the best built road of its size in the
central West. Its operation, after the first four years, was also suc-
cessful and accomplished what the early advocates of the scheme desired.

This success was accompanied by direct financial benefit to the federal and state governments. By the terms of the land grant act the alternate odd numbered sections not turned over to the state were sold for not less than \$2.50 an acre, double the former price, and the government lost nothing by giving half the land away. In fact, the construction of the railroad materially hastened the sale of all lands in

CONSTRUCTION OF THE
RAILROAD OF DIRECT
FINANCIAL BENEFIT
TO THE FEDERAL GO-
VERNMENT

central Illinois. Furthermore, the Illinois Central was of almost incalculable value to the country during the Civil War. The least import-

ant service was the ~~transportation~~ ^{for} reduced rates of troops and army supplies. Of far greater influence was the fact that such troops and supplies could be transported at all. The railroad provided an easily guarded connection between the federal armies in the West and the loyal states of the union. Hundreds of thousands of men and ~~millions~~ ^{tens of thousands} of tons of supplies were carried over the line and placed quickly and safely near the base of active military operations. Had it not been for the Illinois Central the vast resources of the central West could not have placed at the disposal of the government as easily as they were, the operations of the army would have been hampered and restricted, and the ultimate success of the national cause delayed that much.

The direct influence of the railroad on the state of Illinois was also of great importance. In the charter the state wisely exacted from the company a consideration of seven per cent of the gross earnings

INCREASED TAXES FROM
THE RAILROAD PUT THE
STATE ON SOUND FIN-
ANCIAL BASIS

in return for the land grant. This is almost the only instance where either the state or national governments received any immediate compensation for lands surrendered to a private corporation. The development of a system of in-

ternal transportation was the primary cause of the state debt, and, by the foresight of the legislature, the land grant was made the means of paying off the indebtedness, but without further risk on the part of the state. It might almost be said the present Illinois Central corporation was created for the purpose of increasing state taxes.¹ The results were all that the public could have asked. Including the year 1870, the seven per ^{gross} tax on the ~~net~~ earnings of the company amounted to a total of four million six hundred thousand dollars, or nearly a third of the obligations of the state when the charter was granted. The large annual receipts permitted the prompt payment of the interest and the retirement of a portion of the principal ^{of the state debt} without the imposition of heavy taxes upon the industries of the state. Moreover, the building of the road opened up to settlement thousands of farms, and the increase of taxes were also an important consideration in placing the state on a good financial standing. Through the cash payments into the state treasury and the increased valuation given the property of the citizens the Illinois Central placed the state of Illinois upon a firm financial basis and made its credit as good as that of any commonwealth.

The construction of the "Central" meant more to Illinois than the payment of half a million dollars of taxes a year. When Lieutenant Governor Jenkins and Sidney Breese first suggested a central railway, the interior of the state from Chicago to Du Quoin and from Danville to Springfield was an unoccupied wilderness. When Colonel Mason and his engineers ~~are~~ surveyed the route of the railroad most of this territory was still ~~un~~settled and its resources practically untouched. The important influence of the Illinois Central came in the development of this part of the state.

1. Personal Statement of Mr. Head, Clerk of the House during the passage of the Charter.

Twenty years later there had taken place a transformation in the interior counties of Illinois. One fifth of the entire population of the state was living in these counties, and their products formed one fourth of all those raised by Illinois. Slightly more than one half of the people of the state were within twenty miles of the Illinois Central, and their wealth and prosperity was equal to that of any portion of the commonwealth. Early travellers declared the prairies could never be anything but a desert, but in 1870 they were the granary of the North Atlantic States. Nor was the development of the territory tributary to the railroad confined to material things. Towns and cities were numerous; churches, schools, and colleges were as common as in other parts of the state; and the people were prosperous and contented.²

This development of central Illinois was brought about, almost entirely, through the efforts of the Illinois Central. There were other roads through the region, but until after the close of the war their influence was slight compared with that of the "Central". Not another railroad crossed its line from Cairo to Centralia, and there were only five from La Salle south.³ Moreover, during the first ten years of the company's history the transverse lines were merely feeders for the north and south road, so far as local territory was concerned. Thus, the full credit for the development of the central counties of Illinois must be given to the Illinois Central Railroad.

² Cf. Chapter v, page 121
³ Viz., Onio and Mississippi, Terre Haute, Alton and St. Louis, Great Western, St. Louis, Alton and Chicago and Peoria and Quakana
 Cf. Chapter iv, page 84.

Furthermore, the construction of the Illinois Central had a far-reaching influence on the growth of the country. In the sixth and seventh decades of the nineteenth century there took place an important expansion in the production of food stuffs due to the increasing demands of Europe and the eastern states. Most of this development, as shown in the preceding pages, occurred in the central west and the Illinois Central Railroad and the country dependent upon it were the most

ILLINOIS CENTRAL
PLAYS AN IMPORTANT
PART IN THE AGRI-
CULTURAL DEVELOP-
MENT OF THE COUNTRY

prominent single factor in increasing the movement of western grain to the North Atlantic seaboard. Next to the Chicago, Burlington and

Quincy Railroad the Illinois Central handled more wheat and corn than any other road in the west and, if the total tonnage of all grains is considered, it surpassed even that road. In the four years of the Civil War there was no other portion of the country which increased its production of grain to as great an extent as did the central counties of Illinois. By 1870 the agricultural territory directly dependent on the "Central", including the Iowa leased lines, supplied a larger share of the western grain forwarded to the Atlantic coast than any other area of similar size in the United States.

The Illinois Central was built with the definite object of building up the interior of Illinois and the results amply justified all the efforts expended in securing the road. Instead of being isolated from the leading markets and forced to be largely self sufficing, the people

CENTRAL ILLINOIS BE-
COMES ESSENTIAL PART
OF THE ECONOMIC OR-
GANIZATION OF THE
COUNTRY

in that part of the state had become an essential factor in the economic organization of the country. They were no longer self sufficient,

but produced commodities, principally grain, needed by the eastern States and, in turn, consumed the manufactured goods of that section.

Instead of being a drawback to the other portions of the state they occupied a leading position in its economic, as well as political and social advancement.

Thus, the construction of the Illinois Central may be regarded as the most important industrial undertaking ever commenced in the state of Illinois. The promoters of the enterprise, the investors in the securities of the company, and the men who managed its financial, traffic, and operating affairs after completion, deserve great credit for their efforts in making ^{it} an actual reality, even though they did so with the purpose of making handsome profits for themselves. At the

SUCCESS OF THE IL-
LINOIS CENTRAL
BASED ON LAND GRANT

same time, the real success of the railroad was based on the federal land grant. It was

not the capital behind Robert Schuyler and the other promoters that gave the company its standing, nor was it the business ability of the directors that induced capitalists to purchase the stock and bonds of the corporation. The enormous extent of the land grant was the primary cause of the financial stability of the company. Had it not been for the land, the promoters could never have obtained the funds to build the road.

Moreover, after the enterprise was completed, it was the receipts from the land grant which kept the corporation from going into insolvency. From 1855 to 1861 there was not a year in which the net earnings from the operation of the railroad paid even the fixed interest

RECEIPTS FROM LAND
GRANT MADE OPERATION
OF ROAD PROFITABLE

charges. Without the receipts from the ^lland ^dDepartment the railroad would have been fore-

closed before it was finished. Even after 1862 the operation of the lines did not give sufficient profit to ^{have} ^{paid} a regular eight per cent dividend on the actual cash invested in the stock. As a matter of

The following is a list of the names of the persons who have been elected to the office of Justice of the Peace for the year 1900.

John A. Smith, James B. Jones, William C. Brown, David E. White, Charles F. Green, Thomas G. Black, Henry H. Gray, George I. Hall, Frederick J. King, Lewis K. Lee, Arthur L. Martin, Benjamin M. Myers, Nathan N. Parker, Jacob O. Quinn, John P. Reed, Samuel R. Shaw, Daniel S. Stone, John T. Taylor, George U. Underhill, William V. Walker, Charles W. Wilson, Thomas X. Young, John Y. Zane, John A. Smith, James B. Jones, William C. Brown, David E. White, Charles F. Green, Thomas G. Black, Henry H. Gray, George I. Hall, Frederick J. King, Lewis K. Lee, Arthur L. Martin, Benjamin M. Myers, Nathan N. Parker, Jacob O. Quinn, John P. Reed, Samuel R. Shaw, Daniel S. Stone, John T. Taylor, George U. Underhill, William V. Walker, Charles W. Wilson, Thomas X. Young, John Y. Zane.

The following is a list of the names of the persons who have been elected to the office of Justice of the Peace for the year 1900.

fact, the average dividend for this period would ^{have} amounted to six per cent, instead of twelve, ^{1 had it not been for the earnings of the land department.} and there would have been no stock distributions nor surplus at the end of the period. Investors in other corporations ^{which were} managed as well as the Illinois Central were making ten and twelve per cent or even more on their actual investment, and the actual returns to the owners of the Illinois Central, so far as the operating accounts were concerned, were below a reasonable standard. In other words the land grant subsidized the railroad. It was an arrangement which benefited both parties, and while the promoters of the Illinois Central made handsome profits on the operation of the road, the state of Illinois, its citizens, and the people of the country as a whole received ^{equal} ~~equivalent~~ advantages through the development of the territory near the railroad.

It is one of the ironies of the economic history of the United States that the Illinois Central Railroad, which was constructed to develop traffic along north and south lines, should be the foremost influence in changing the commerce of Illinois into east and west lines. The Civil War and the changed economic conditions following the struggle forced the company to send the grain ^{from} ~~from~~ central Illinois to

ILLINOIS CENTRAL,
DEVELOPS COMMERCE
OF WEST ALONG
EAST AND WEST LINES

Chicago, and prevented its developing a profitable market in the south, although ^{the former} ~~this~~ policy was clearly against its best permanent interests. As a result, the people were accustomed to ship their grain, live stock and raw materials east to the Atlantic seaboard and after the Civil War the company was unable to bring about any change. So long as the cost of carrying freight by railroad was high, and there were no strong

east and west lines entering the state below Chicago, the Illinois Central did not lose much by this diversion of traffic. It obtained almost as long a haul from the central part of the state to Chicago as it would have to Cairo and the return freight was greater. Up until 1870 the east and west lines were not powerful enough to interfere with the business of the north and south trunk line and the grain traffic of the latter was reasonably profitable.

However, in the closing years of the seventh decade the trunk lines, especially the Pennsylvania, New York Central, Baltimore and Ohio, and Wabash, extended their tracks into central Illinois, and one by one they gained complete possession of the connecting and feeder lines which formerly had turned their freight to the Illinois Central.

DEVELOPMENT OF EAST
AND WEST TRUNK LINES
THE IMPORTANT FEATURE
OF THE DECADE ENDING
WITH 1870

The latter company, instead of seeking to retain them even to the extent of purchase or lease, pursued the ultra-conservative course of neglecting them entirely ^{or} ~~and refusing to enter upon any financial responsibility.~~ Thus, the company was practically isolated in 1870 and did not have an important connecting or branch line directly under its control.

As a result of the changed conditions in the movement of grain and the expansion of the east and west railroads, ^{the Illinois Central} was gradually being forced into an awkward position. Its natural business along north and south lines was hampered and almost destroyed by the prostration of the South. The traffic which it had built up from central Illinois to Chicago was being cut into by east and west railroads, which were each year becoming better able to compete with their rivals. Finally, the branch ^{connecting lines} ~~lines and connections~~ dependent upon it ~~on account of their weakness~~

^{being purchased}
 were now ~~owned~~ or leased by strong companies whose interests were di-
 ametrically opposed to those of the Illinois corporation. ^{By 1870} ~~and yet~~ these
^{opposed to the Illinois Central}
 opposing forces ^{had not made themselves evident, but they were steadily}
^{in a better position}
 gaining strength and placing themselves for the conflict. On the
 other hand, the Illinois Central neglected to better its position and
 allowed important connections to slip from its control. When the con-
 flict did break the latter company was unprepared and suffered ac-
 cordingly. Thus, the year 1870 represents the high tide of prosperity
 for the Illinois Central Railroad, and not ^{again} for some thirty-five years ~~and it~~
^{again held}
~~was it be in~~ as strong a position from the financial and traffic stand-
 point, ~~as it was then.~~

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46 Annual Reports of the Directors to the stockholders for calendar and fiscal years, 1871 to 1907, inclusive. Contain considerable detailed material, but not as much as in the earlier reports. With a few exceptions statements and statistics are perfectly correct and no attempt is made to misrepresent affairs. *[University of Chicago Library and Library of the Illinois Central Railroad, Chicago, Ill.] U.C., I.C.*

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A insert on next pg

THE HISTORY OF THE UNITED STATES

The history of the United States is a story of growth and development. It begins with the first settlers who came to the shores of the New World. These pioneers found a land of vast potential, but also one of great challenges. They had to learn to survive in a new environment, to build a life from scratch. Over time, the United States grew from a small collection of colonies into a powerful nation. It has faced many hardships, but it has always emerged stronger and more united.

The United States has a rich and diverse culture. It is a land of many different peoples, each with their own traditions and customs. This diversity is one of the strengths of the United States. It has allowed the country to embrace new ideas and innovations, to become a leader in many fields. The American dream is a powerful force that has inspired millions of people. It is the belief that anyone can achieve success and happiness through hard work and determination.

The United States is a land of opportunity. It is a place where people can start their own businesses, where they can pursue their dreams. The country has a long history of innovation and progress. It has been the birthplace of many of the world's most important inventions and discoveries.

The United States is a land of freedom. It is a place where people can live their lives as they see fit, without the interference of a central authority. This freedom is a cornerstone of the American way of life. It is what has made the United States a great nation.

The United States is a land of hope. It is a place where people can build a better future for themselves and for their children. The country has a long history of progress and improvement. It has shown the world that it is possible to create a more just and equitable society. The United States is a land of endless possibilities.

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C. 8. A must have
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cong etc?
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THE HISTORY OF THE CITY OF NEW YORK

From the first settlement of the Dutch in 1624 to the present time, the city has grown from a small village to a great metropolis. The Dutch, who were the first to settle here, were followed by the English, the French, and the Spanish. The city has been the seat of many wars and revolutions, and has played a prominent part in the history of the world.

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Railway Times, 1850 to 1870. (London, Eng.) Contains extracts from proceedings of the Board of Directors, etc., of the English stockholders, etc. Practically all letters or statements published by the company from 1851 to 1870 are contained in this series. It is the most important single reference used for the period from 1851 to 1858. Practically all statements are official or semi-official. (John Crerar Library, Marshall Field Building, Chicago, Ill. The set is complete.)

BIBLIOGRAPHY.RAILWAY AND FINANCIAL PERIODICALS. (Cont.)

Railway Journal, 1854. (Philadelphia, John Grear Library, Marshall Field Building, Chicago, Ill.) Of very little importance.

American Railway Journal, 1850 to 1860. (New York, 1850 to 1860) Contains a great many statements, notices, advertisements, reports, editorials, etc. in regard to the Illinois Central. The references to the Dubuque and Sioux City Railway are especially important. A large number of official statements of this company are included. (James Hill Railway Collection, University of Wisconsin Library, Madison, Wis.)

Railroad Record, 1849 to 1853 (Cincinnati, 1849 to 1853) Duplicates material in American Railway Journal and adds some additional information of slight importance. (Mercantile Library, St. Louis, Mo.)

MISCELLANEOUS PUBLICATIONS. #

Illinois Monthly Magazine, complete. (Vandalia, Ill., 1830) Contains some interesting information in regard to early plans for building a railroad or canal through the state. (Chicago Historical Library, Chicago, Ill.) CH

Fergus Historical Series, Nos. 17 and 24. (Publications of the Chicago Historical Society) Personal reminiscences, etc.

Regan, Wilds of America (Chicago Historical Library) CH

J.M. Peck, Gazetteer of Illinois, 1837 (Chicago Historical Library, Chicago, Ill.) CH

H.S. Tanner, Views of the Valley of the Mississippi River (Chicago Historical Library) CH

Publications of the Cairo City and Property Company. (Illinois State Historical Library, Springfield, Ill.) IH

Ammon, The Past, Present and Future of the City of Cairo. (Illinois State Historical Library, Springfield, Ill.) IH

Henry Long, Report on the Condition and Prospect of Cairo. (Illinois Historical Library, Springfield, Ill.) IH

The above miscellaneous pamphlets were used in chapters I and II. Specific references are not given to any of them in the text, but the writer's views are based very largely on material found in these publications. They are all rare books without dates in many cases, but they can be obtained at the libraries referred to by use of the author and title only.

THE HISTORY OF THE
CITY OF BOSTON

The city of Boston, situated on a neck of land between the harbor and the bay, has been the seat of government since the first settlement. It was founded in 1630 by a group of Puritan settlers, and has since that time been a center of political and commercial activity. The city has grown steadily, and its influence has spread throughout the region. It is now one of the largest and most important cities in the United States.

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BIBLIOGRAPHY

MISCELLANEOUS PUBLICATIONS (Cont.)

Annual Reports, Chicago Board of Trade, 1858 to 1870. (Chicago, 1858 to 1870) Gives statistics of the city of Chicago, including receipts over various railroads, the canal, and the lake. Of special importance in traffic chapter. [University of Illinois Library, Urbana, Ill.] UJ.

SECONDARY AUTHORITIES:- *Center caps.*

W.K. Ackerman, Early Illinois Railroads. (Fergus Historical Series No. 23, Fergus Printing Co., Chicago, 1884) Contains some valuable information, but on the whole is of little historical importance.

Davidson ^{and} Stuve, A Complete History of Illinois from 1673 to 1884. (2nd Edition, Springfield, W.H. Rokker, 1884) Treats the Illinois Central from a biased point of view.

J. Moses, Illinois Historical and Statistical (Fergus Print, Chicago, 1889-1892) Gives some interesting information, but not of great historical value.

Hinsdale, The Old Northwest. (New York, 1888--T. MacCoun)

A.T. Andreas, History of Chicago. (A.T. Andreas, Chicago, 1884-1886--3 v.) Fairly accurate and contains some valuable information on the relations of the city of Chicago and the Illinois Central.

Sidney Breese, The Early History of Illinois. (E.B. Myers & Co., Chicago, 1884) The Appendix contains correspondence between Sidney Breese and Senator Douglas in regard to their respective influence in securing the federal land grant act.

Helper, The Impending Crisis of the South (A.B. Burdick, New York, 1860) Treats of conditions in the South at the commencement of the Civil War and shows the relation between the West and South. (Cf. Olmsted's various travels in the South)

G. Gale, Upper Mississippi (Clark & Co., Chicago, 1867) Refers to early history of Galena, but is of little value.

J.B. Sanborn, Congressional Grants of Land in Aid of Railways. (University of Wisconsin Publications, Madison, 1899) Chapter II gives a summary of Congressional legislation respecting the Illinois Central. An accurate treatment of the subject.

Newton, Railway Legislation in Illinois, 1828 to 1870. (Mss. thesis in University of Illinois Library) Gives a summary of legislation by Illinois on railroads and canals from 1828 to 1870. Of fair historical value.

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SECONDARY AUTHORITIES (Cont)*

H. W. Quaintance, The Influence of Farm Machinery on Production and Labor. (University of Wisconsin, Madison, Wis., 1904)

The Agricultural Development of the West during the Civil War, Fite, (Quarterly Journal of Economics 22, 259-278)
Treats of prices of western produce in relation to freight rates and the inflation of the currency. (Cf. Mitchell, History of the Greenbacks)

Aside the books and articles by Fite, Sanborn, and Ackerman, the secondary material relating to the Illinois Central is practically worthless. With slight exception all published material relating to the history of the company is based on Mr. W. K. Ackerman's paper before the Illinois Historical Society on Early Illinois Railroads. The paper is excellent so far as it treats of events coming under Mr. Ackerman's personal observation, but the remainder is merely a collection of interesting incidents. Very little secondary material is absolutely inaccurate, but at the same time, an equally small portion is of real historical value.

(cont. p. 25)

A P P E N D I X

CORRESPONDENCE BETWEEN HON. SIDNEY BREESE AND HON. STEPHEN A. DOUGLAS WITH REFERENCE TO THE CLAIM OF THE LATTER TO HAVE ORIGINATED THE IDEA OF THE ILLINOIS-CENTRAL RAILROAD.

Letter of Hon. Sidney Breese to the Editors of the "Illinois State Register", from the Daily Illinois State Register, December 28, 1850.)

Cady, Dec. 23, 1850.

Gentlemen:--Your letter of the 19th is before me, in which you quote from the Benton Standard that I am "out" for the Holbrock charters, etc.: and you say that if I am, I am alone among the delegates from the South. How do you know this?.....

I am in favor of accepting the release of the Cairo Company, but at the same time not disposed to ride rough shod over the rights of that company or of any other. I am for doing justice to all. If that company can make the road in the shortest time, and in the best manner, and without any expense to the State, and offers advantages well secured, over and above all other companies, then I am for it, most decidedly. I am for having the road made, and in the shortest time, and in the best manner, and I care not who makes it. The (Illinois)-Central Railroad has been a controlling object with me for more than fifteen years, and I would sacrifice all my personal advantages to have it made.I must have the credit for it, for I originated it in 1835, and when in the senate, passed three different bills through that body to aid in its construction. My successors had an easy task, as I opened the way for him. It was the argument contained in my reports on it that silenced all opposition, and made its passage easy. I claim

THE HISTORY OF THE
CITY OF BOSTON

From the first settlement of the city to the present time, the history of Boston is a history of the growth of a great city, and of the development of a great state.

The city of Boston was founded in 1630, and has since that time been the seat of government, commerce, and industry.

The city of Boston has been the center of the New England movement, and has played a leading part in the history of the United States.

The city of Boston has been the seat of the great Puritan movement, and has played a leading part in the history of the United States.

The city of Boston has been the seat of the great Revolutionary movement, and has played a leading part in the history of the United States.

The city of Boston has been the seat of the great Industrial movement, and has played a leading part in the history of the United States.

The city of Boston has been the seat of the great Social movement, and has played a leading part in the history of the United States.

The city of Boston has been the seat of the great Educational movement, and has played a leading part in the history of the United States.

The city of Boston has been the seat of the great Religious movement, and has played a leading part in the history of the United States.

The city of Boston has been the seat of the great Artistic movement, and has played a leading part in the history of the United States.

The city of Boston has been the seat of the great Literary movement, and has played a leading part in the history of the United States.

The city of Boston has been the seat of the great Scientific movement, and has played a leading part in the history of the United States.

the credit and no one can take it from me. As for Mr. Holbrook and his charters, I care not a straw, but I am for doing justice and for making the road. I doubt whether you are or not. What right have you, or any others, to denounce the Cairo Company, and endeavor to make it odious and deprive it of its rights?

Yours respectfully,

S. Breese.

Letter from Hon. Stephen A. Douglas to Hon. Sidney Breese.

(From the Daily Register, Springfield, Ill., 1/20/51)

Washington, Jan. 5, 1851.

My dear sir:--I have been amused, interested, and instructed by the perusal of your letter of the 13th ultimo, to the ^{editors} of the State Register.....

We (Breese and Douglas) entered congress together in December, 1843, you a senator and I a member of the house. On the 27th of that month, you presented a memorial of the "Great Western Railway Company," praying the right of pre-emption for Mr. Holbrook and his associates to a portion of the public lands over which this contemplated road was proposed to be run. This memorial, on your motion, was referred to the committee on public lands, and on Feb. 23, 1844, Mr. Woodbridge of Michigan, as a member of that committee, reported a bill in pursuance of the prayer of the memorial, "to grant to the Great Western Railroad Company the right of way through the public lands of the United States, and for other purposes." This bill, if my recollection serves me right was proposed by yourself, and shown to me before it was reported from the committee. You urged Col. McClernand and myself, and I presume other members of the delegation, to give it our countenance and support

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which we declined to do, and gave you our reasons. We insisted, in the first place, that whatever grant was made for railroads in our state, should be conferred upon the state of Illinois, and not upon an irresponsible private corporation. We had no faith in Mr. Holbrook and his associates---none in their ability to make the road---nor in their purpose to make a serious effort for its construction. We believed the object was to enable Mr. Holbrook and his associates to sell their charter, with the preemption attached, for a large amount in Europe, where their value or rather their worthlessness was unknown, and then abandon the whole concern. We urged that the effect of the measure would be to suspend the land sales, and consequently prevent the settlement of the country for the period of ten years, without the slightest hope of securing the construction of the road; at the same time that it would deprive us of any chance of providing a grant of land to the state to aid in the construction of that important work. For these reasons, and perhaps others which have now escaped my recollection, we endeavored to impress upon you the inutility of such a scheme, and suggested the alternative of introducing to the senate a bill making a donation of land to the state, to aid the construction of the (Illinois)-Central Railroad.

You declined the suggestion, however, and persevered in pressing your bill for the benefit of the Holbrook Company through the senate upon the ground that a preemption right to the company would answer all the purposes as well as a grant to the state, and that there was not the least reason to hope that such a donation could be obtained. At the next session, to-wit, on the 12th of December, 1844, you introduced the same bill, or one similar in its provisions, with the exception that you inserted the words "the state of Illinois" instead of the Holbrook Company, as the party to which the preemption right was to be

given. You were kind enough to inform me that you had made this alteration in defence ^{um} to my opinion and to avoid the objection to making grants to private corporations. This bill, on your motion, was referred to the committee on public lands, and on January 23, 1845, was reported back by Mr. (Wm.) Woodbridge (U.S. Senator from Michigan) with an amendment. I can not recollect, nor can I learn from the journal, that you ever moved to take up the bill for action or attempted to pass it.

At the next session, to-wit, on Jan. 15, 1846, you introduced a bill to grant to the state of Illinois certain alternate sections of the public lands to "aid in the construction of the Northern-Cross and (Illinois)-Central railroads in said state." This bill was referred to the committee on public lands, of which you had become chairman; and on February 24, was reported back by you with certain amendments and accompanied by a special report. I suppose that this is one of the reports to which you refer in your letter, where you say, "It was the argument contained in my reports on it that silenced all opposition...."

I have carefully examined the journal and minutes, in connection with one of the officers of the senate, and find that the record sustains my recollection, that you never moved to take up that bill from the day you first reported it. At the next session, to-wit, on December 17, 1846, you introduced a bill for the right of way and a preemption right, omitting the donations to the state, to aid in making the road. This bill was also referred to the committee on public lands, and on January 4, reported back with an amendment, accompanied with a report from yourself. It does not appear, however, that it was ever acted upon by the senate, much less passed, notwithstanding your report "silenced all opposition and rendered its passage easy." I do not regard the failure to urge the passage of this bill a very great mis-

fortune, however, inasmuch as it only would have allowed the state to enter the lands at one dollar and a quarter per acre, upon the further condition, that we would make a railroad through them.

I have now brought down the history of this question to the period when I became your colleague in the senate. Although you had introduced several bills at different times, you had never seriously urged the passage of but one, and that was a bill to grant a preemption right to the Holbrook Company instead of a donation to the state.

The difference between us at this time was precisely the same as it had been during the preceding four years. You were the champion of the policy of granting preemption rights for the benefit of a private company, and I was the advocate of alternate sections to the state, to aid in the construction of the roads.

During the summer of 1847, after I had been elected to the senate but before the time had arrived for my taking my seat, I travelled over a considerable portion of the state, and wherever I went I told my friends that I should insist upon a donation instead of a preemption, and that the grant should be made to the state in lieu of the Holbrook Company. You can learn, if you will take the trouble to inquire of Hon. Thomas Dyer, who is now a member of the legislature with you, that in the month of September of that year, I urged him and many other citizens of Chicago to hold public meetings and to send on memorials in favor of a donation of lands to the state, to aid in the construction of the (Illinois)-Central Railroad and in favor of one terminus at Chicago.

It was necessary that the road should connect with the lakes in order to impart nationality to the project and secure Northern and Eastern votes. The old line from Galena to Cairo--parallel to the Mississippi, with both termini resting on that stream---was regarded by our eastern friends as purely a sectional scheme, calculated to throw

The first thing I noticed when I stepped out of the car was the cold. It was a sharp contrast to the warm blanket of the car. I shivered slightly, but then I remembered that this was just the beginning. The air was crisp and clean, a welcome change from the stuffy interior of the car. I took a deep breath, savoring the scent of the morning air. It was a mix of earth and freshness, a reminder of the world outside. I looked up at the sky, where a few wispy clouds were scattered across a pale blue canvas. The sun was just beginning to rise, its golden rays filtering through the trees and casting long, soft shadows on the ground. I felt a sense of peace and tranquility, a moment of stillness in a world that was always in motion. I walked slowly, feeling the texture of the grass under my feet. It was a simple pleasure, a small moment of connection with nature. I knew that this was what I needed, a chance to breathe and to be. I closed my eyes for a moment, letting the world wash over me. In that instant, I was home.

the whole trade upon the Gulf of Mexico at the expense of the cities on the lakes and the Atlantic seaboard. By making an additional terminus at Chicago it would connect the lower Mississippi with the lakes, the St. Lawrence with the Gulf of Mexico, and the Upper Mississippi Valley with both. I urged these considerations wherever I went, not doubting that I should convince you of their force when we should meet at the capital. When we arrived in this city I had an interview with you upon the subject, before the two houses were organized, and explained my views to you in full. You treated me and my opinions with kindness and frankness, but at the same time insisted that your old plan of a preemption right was advisable under all the circumstances in preference to a grant of lands to the state. It is but just to you to say that I did not understand you as being opposed to a grant of land to our state; but you had no faith in the possibility of accomplishing it, and therefore thought it idle to make the effort. You were also kind enough to show me a bill which you had already prepared for a preemption right and to read to me a very elaborate report which you had written in vacation in behalf of your bill, so as to make it a donation to the state, and to change your report so as to make it correspond with the bill as modified. I assured you that I did not desire to lead in the matter, nor even have my name connected with it; that inasmuch as I was elected for six years, and your reelection would come on at the end of two years, I was anxious that you should become the author of the measure and take full credit for its success; but that I could not consent to go into a struggle for a thing where success would be defeat, and the attainment of it would be of no manner of service to our constituents. You will doubtless recollect that we had several other interviews upon the subject between that time and the 20th of the month in which the same points were discussed and the arguments pro and con

recapitulated without being able to harmonize our conflicting opinions, and it was finally agreed that each should pursue his own course. At length on the 20th of December (1847) you introduced your old preemption bill and had it referred to the committee on public lands. Subsequently Messrs. Elihu B. Washburne and O.C. Pratt of Galena called to see me at my rooms at Willard's Hotel, and I explained to them the points of difference between us. They will do me the justice to say, if they recollect the conversation, that I spoke of you in terms of kindness and respect, and regretted our inability to harmonize our action upon this question, as a misfortune which I was anxious to avoid.

I showed them at the same time a memorial which I had just received from Chicago, in favor of a grant to the state, with a letter from Justin Butterfield, Esq., informing me that active steps had been taken to procure petitions from all parts of the state in support of the application. Those gentlemen were delighted with the movement, and seemed amazed that you should give any other the preference, especially in direct opposition to the instructions of our legislature, which you had presented to the United States Senate on the 22nd of February, previous.†

† On January 9, 1847, Hon. Silas Noble, a senator from the district composed of the counties of Rock Island, Henry, Whiteside, and Lee, presented to the State senate of the 15th general assembly, then in session, "The petition of John Dixon and others, asking the legislature to instruct our senators and request our representatives in congress to pass a law granting to the state a quantity of land in aid her in the completion of the Northern Cross and (Illinois)-Central Rail roads," which was read and on motion of Peter Warren of Shelby Co., referred to the committee on public roads.---Senate Journal, Ill., 1847, page 91.

On the 14th day of the same month, in the same body, "Mr. Noble from the committee on public roads, to which was referred the petition of John Dixon (of Lee Co.) and others, asking the legislature to instruct our senators, etc., reported the following resolution:

"Resolved by the Senate, the House of Representatives concurring herein, That our senators in congress be instructed and our representatives requested to use their best endeavors to procure the passage of a

(continued on page 240)

They told me that they would call upon you next morning, before the senate met and urge you to give your support to this plan for the good of the state, in preference to a preemption for the benefit of the Holbrook Company. I authorized them to say to you that if you would yet change your bill in this respect I would not introduce my own but would support yours, and thus enable you to reap the whole credit of the measure. I still had hope that you would modify your bill and views in this respect, and enable us to act together for the benefit of our constituents. On the next day (January 20) about 12 o'clock, when the senate was just assembled, I approached you at your desk under the impression that Messrs. Washburne and Pratt had had their interview with you, and again asked you to change your bill into a donation to the state, which you promptly, though in a kind and respectfully manner, refused to do. I then went to my own seat, and in a few minutes introduced my bill for a grant of land to the state, which was then read a first and second time and on my motion referred to the committee on public lands; and on January 24, was reported back without amendment, and on April 19, on my motion, was taken up and, by order of the senate, made the special order for Wednesday, May 3; and on May 4 (1848), on my motion was considered in the committee of the whole, read a third time, passed the senate by a large majority, and sent to the house for their concurrence.

It must not be inferred from these facts taken from the record that you opposed the bill. Such an inference would be unjust as it is unfounded. I recollect distinctly a few minutes after I introduced the bill of seeing you in animated conversation with Messrs. Pratt and Washburne, and that you came directly from them to me, and expressed your regret that I had introduced the bill, and that you were willing to change your own to suit my wishes. I told them that it was now too

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late to do that, but as my bill had been referred to the committee on public lands, ^{which} of/you were chairman, you could take the report which you had prepared in behalf of your preemption bill, strike out the words "preemption right" wherever they appeared, and insert the words "grant of lands to the state" in their place, and with a few other slight amendments the report would fit my bill as well as yours. You agreed to this suggestion, and, for the time being, abandoned your preemption scheme, and on January 24, you reported back my bill, without amendment accompanied with your report, so modified as to suit its provisions. Fourteen days afterwards, however, to-wit, on February 7, you, as chairman of the same committee, reported favorably upon your preemption bill, and placed it upon the calendar, in competition with my bill for the grant of lands. I complained of this as being calculated to defeat the donation to the state; that we could hardly expect congress to make our state a donation of lands while one of our senators was urging the passage of a bill to compel the state to pay a dollar and twenty-five cents per acre for them. You disavowed all desire or purpose to defeat my bill, and declared that your only object in reporting your own was to get it upon the calendar, where it could be taken up and passed when mine had been voted down.

I at once acquitted you of any intention or purpose to defeat a grant of land to the state, but attempted to convince you that the pressing of a bill by you, which required the state to pay the full price of the lands, ~~must~~ ^{must} inevitably defeat the passage

 * (continued from page 239) bill similar to the one introduced by Hon. S. Breese at the last session of congress, granting to the state of Illinois a quantity of land to aid her in the completion of the Northern Cross and (Illinois)-Central railroads."

On motion of Mr. Noble, the rule was dispensed with, and the resolution read and adopted." Senate Journal, Illinois, 1847, page 116.

The resolution was afterwards adopted by the house, and is published in the laws of 1847, page 172.

of a bill to grant the lands to the state without payment; and even if you succeeded in passing your bill, it could be of no service to us, as the state possessed the right, and had unfortunately exercised it, of entering a large amount of public lands without any such law. You thereupon agreed to let your bill sleep until mine had been voted upon, and luckily the passage of mine, on May 4, rendered yours obsolete. The great battle was yet to be fought in the house of representatives, and there, be it said to the honor of our representatives, one and all, that each nobly performed his whole duty, although near the close of the session the bill was laid upon the table by one or two majority, and could not be taken up again except by a two-thirds vote.

This vote in the house of representatives was regarded as decisive of the fate of the bill, and seemed to render it necessary to originate a new bill in the senate and send it down to the house. Accordingly, early in the next session, to-wit, on Dec. 18, 1848, I again introduced my bill in the senate, and had it referred to the committee on public lands, and you promptly reported it back without amendment.

In the meantime, our colleagues in the house had succeeded in taking my former bill from the table and having it reinstated upon the calendar to be again acted upon in its order. This circumstance rendered the senate bill unnecessary, and hence it was never called up for action. During this session, after you had been disappointed in your hopes of reelection, you came to me and appealed to my courtesy to aid you in passing your old preemption bill, and stated many reasons personal to yourself, why it was very important that it should pass. I hardly knew how to resist your appeals to my sympathies and courtesy, and was prepared to yield everything which could be done consistently with my duty to our state. But the conviction was irresistably fixed upon my mind that the passage of your preemption bill would inevitably

defeat all hope of the speedy completion of the (Illinois)-Central Railroad. I expressed these opinions to you frankly, as my reasons for denying your request. You then appealed to me to allow your bill to pass the senate, with the understanding that it would not pass the house of representatives; and you stated your reasons for this request. I told you that I would yield to this, provided I could first be satisfied that there was no danger of the bill passing the house. I then consulted Judge Collamer, the late postmaster-general, who was chairman of the committee on public lands, whether it would be approved by his committee and allowed to pass the house if it came down from the senate. He informed me that in no event could it pass the house of representatives, and being fully satisfied upon this point, by him and others, I informed you of the fact, and consented to the passage of your bill through the senate. Accordingly, on January 25th 31, 1849, your preemption bill was taken up, on your motion, considered in the committee of the whole, and passed the senate. Here your official connection with the subject ceased. You retired to private life, and whatever you may have done since to secure a grant of land to the state is unknown to me.

Neither of the bills alluded to passed the house of representative^s at that session, and hence it was necessary to begin anew at the opening of the next session. In order to secure perfect harmony among our delegation, and to pay all proper respect to the opinions of each, I consulted them all before I introduced the bill. We became satisfied that it was necessary to bring forward the (Illinois)-Central Railroad in a bill by itself, disconnected with all cross-roads, in order to secure success. This point being agreed upon, the bill was prepared by Col. (John A.) McClernand and myself, jointing, and two copies made, with the understanding that he was to introduce one into the house and

I the other into the senate. On January 3, 1850, I introduced the bill into the senate and had it referred to the committee on public lands. On February 12, Gen. Jas. Shields from that committee reported it back, with various amendments, combined in the form of a substitute. During the whole struggle, he and I acted together cordially, consultation on all points and harmonizing in all our views in reference to it. Of course, it passed and went to the house of representatives. There the great battle was fought in which every member of our delegation acted a conspicuous and an efficient part. The bill passed and the State now has the means of completing the (Illinois)-Central Railroad. I do not deem it very important to stop and inquire what individual is entitled to the merit of the measure.

Letter from Judge Freese to Senator Douglas.

(From the Weekly Register, Springfield, February 6, 1851.)

My dear sir:---The exceeding good humor in which your letter to me.... It was known from my first entrance into congress that I would accomplish that measure in some shape, if possible, (i.e. the land grant) and I have the best reasons for knowing, and therefore saying, that if the bill reported by Mr. Woodbridge in 1844, granting a preemption right to the great (Illinois)-Central Railway Company, incorporated the year before by the legislature, and which I defended and explained in the senate, and which was ordered to be engrossed and read a third time, by a vote of 20 to 9, and finally passed that body, on May 10, had been taken up in the house, and the least exertion made to pass it, it would have become a law, and the road be now made without one dollar of expense to the State. I did not myself prefer that the grant should be

made to the company, but to the state; but at that day, with those then in power, it was deemed the best that could then be had. At the next session, without any consultation with you or with any other, not supposing you then to be very favorable to the project, I introduced a bill making the grant to the state, which was reported by Mr. Woodbridge, the chairman of the committee on public lands, late in January 1845, with amendments; and it being the short session, no opportunity occurred to call it up and pass it, nor did it seem necessary, on account of the supposed indifference of the members of the house upon the subject. Having made the preemption bill of 1844 an entering wedge, and familiarized the senate in some degree to the consideration of the importance of this road, by the discussion to which it gave rise, and having been in the meantime elected chairman of the committee on public lands, with a majority of my own party, friends as associates, I did, on January 15, 1846, ask and obtain leave to bring in a bill to grant to the state of Illinois a certain alternate sections of public lands, to aid in the construction of the Northern Cross and (Illinois)-Central railroads in said state, which was referred to the committee of which I was chairman.

On February 24, 1846, I was instructed by the committee to report with amendments, and submitted a long report, accompanied with explanatory tables. This report urged the importance of the construction of the Northern Cross Railroad to Quincy, as well as that of the (Illinois)-Central Railroad. I found even in this no sympathy with our members in the house, save perhaps Mr. Hoge and Mr. Baker, and no encouragement to persevere, and no favorable comment to call it up in the senate for its action, as the minds of that body, and of the Nation were much occupied and highly excited by the Mexican war, recognized to exist in May of that year, inducing every patriot to forego local measures

for those of a more national character. I was charged, too, at that session with the "bill to reduce and graduate the price of public lands which I had introduced on Dec. 15, 1845, and which I could not get leave to report back until May 7, 1846.....You will recollect that my bills, all of them, established the roads on the routes defined by our internal-improvement system of '36 and '37, on which the state had expended such large sums of money; and that fact was a strong argument, as I thought, in my report. In 1847, you made choice of Chicago as your home, and, as I understood, purchased a large amount of property there. Now neither of my bills toucheed Chicago; they confined the roads to the old routes---the (Illinois)-Central Road, as then understood, from Cairo, by Vandalia, Shelbyville, Decatur, Bloomington, Peru, and Dixon, to Galena. A new light broke in upon you when in conjunction with Mr. Butterfield and others intrusted in Chicago, a great movement was set on foot to distrub my plans and to change the route of the (Illinois)-Central Railroad, so as to make it run to Chicago and thence to Galena. You can not have forgotten how much surprised I was when you informed me of your intention, after you had taken your seat, in December, '47, to bring forward this proposition, how earnestly I urged upon you, while admitting the importance of the change an adherence to the old plan, and how sanguine I was if we could get a preemption the road would be made---that parties were then in Washington, from other new states interested in railroads, who had repeatedly declared to me that they would rather have a preemption for ten years, on all the land within six miles of the road, than an absolute grant of one-half, with the price of the other half raised to two dollars and fifty cents per acre---that by your course we would disappoint the expectations of all those who had hoped, at some time to see the Central Railroad, as then known and called, completed, and that I

thought it was extremely hazardous, but that if you preferred it, instead of asking for a preemption, I would shape my bill, which was then before my committee, having been referred on Dec. 20, '50, so as to make it an absolute grant, and change my report accordingly, which, by the way, I had not drawn up "in vacation", but had prepared in my committee room.

The matter remained in this condition during a month, and during the interval, those memorials, which you yourself were instrumental in getting up, and prepared by Mr. Butterfield, as I always understood, came to you, which you presented to the senate when, on Jan. 21, '47, you asked and obtained leave to bring in a bill. So soon as you had done this, you came to me, and at your request, we went together to my committee-room; and seeing you determined to effect a change, and that if we were divided in the senate, we would get nothing, I consented, to prevent such a result, to forego all my own cherished plans and purposes, so that we might act in harmony by uniting on something, claiming equally the support of both. Influenced, as I then supposed, by this consideration, you sat down at my table and taking a copy of one of my "old bills" to grant to the state certain alternate sections for the Northern-Cross and (Illinois)-Central Railroad, which I had reported in January, '46, we together altered it so as to embrace in the 1st section a road from Chicago ^{to} the Upper Mississippi, and in the 2d section a road from Cairo to Chicago, "on the most eligible route," and in this form I reported it three days afterward to the senate, accompanied by a report, which I had taken great pains to prepare, and which Hon. J. Crittenden said to me was the only report he had read that session, and that he would make a speech for the bill, which he did do, and which I always believed ~~it~~ gained it many friends and ensured its passage.

For harmony and to avoid distracted councils, I yielded much to you at the risk, too, of losing many friends who were deeply interested in the other route. At this very time, too, you will remember, I showed you a great number of memorials, then before the committee, and to which I alluded in my report; one signed by the then governor of the state, our present governor, and many if not all the members of the convention then assembled to amend our state constitution, and by other citizens of the state, all praying that the right of preemption to these lands might be granted to the Great Central Railway Company, a corporation which, once the great favorite of the state, you have succeeded in rendering quite odious now. I had then, in yielding to you, disregarded the prayer of our worthy governor, the members of the convention, and of the most influential citizens of our state, in different parts of it, merely for harmony and to have your aid in favor of a project to which, not being mine in all its parts, you had, for the first time having become interested in Chicago, manifested the least concern, so far as I know or believe. How far and by what agency you may be considered to have been "whipped into its support" I will leave for others to say, although I did not intend that expression in my letter to the State Register for you or your colleague; for I will do him the justice to say he has ever been a friend of the (Illinois)-Central Railroad. This bill went to the house on May 4 heavily loaded, as you may remember, by an amendment pressed upon us by Mr. Hubbard of Connecticut and other Eastern members, with the assurance that it would give the bill strength in the house. There it was referred to the committee on public lands, of which Mr. Collamer was chairman, and by that committee referred to a subcommittee, consisting of Mr. Evans of Maryland and Mr. McClelland of this state.

While it was recosidering in quiet with that committee, I was informed by two of our members, who began to take a great deal of interest in the bill, that all the members of our delegation, save one, had joined in a letter to the committee requesting them to report the bill without amendment, and at an early day; but so it was, when the bill was reported back late in July, the day of the adjournment since die having been fixed (if I do not forget) for August 14, it came to the house with another amendment making an equal grant of land for a railroad to the (Illinois)-Central Railroad from Mt. Carmel.

In the meantime, between May 4 and the report from the house committee, so long delayed, other bills of a similar character had passed the senate and were in the calendar of the house, and I think had obtained precedence of our own, and when it was called up for final action, it was laid on the table for want of four votes. All the circumstances attending this bill have satisfied me that had the committee of the house reported it within a month, even after the time it was referred to them, and without amendment, it would have become a law. I always thought, and still think it was not considered advisable to pass such a bill, or any bill by which the (Illinois)-Central Railroad should be made, while I was in congress; for, notwithstanding the affected incredulity which you manifest, I have been always regarded, as the truth most unquestionably is, as the originator of this road. Its history is short and I will give it.

While I was the judge of the second judicial circuit, during the October term, '35, at Vandalia, I published the following letter:-

Vandalia, Ill., October 16, 1855.

John Y. Sawyer, Esq.

Dear Sir:--Having some leisure from the labors of my circuit I am induced to devote a portion of it in giving to the public a plan, the

outline of which was suggested to me by an intelligent friend in Bond County a few days since (Mr. Waite of Greenville), by which the North may get their long wished for canal, and the southern and interior counties a channel of communication quite as essential to their prosperity.

In doing so, I have not stopped to inquire if my motives may not be assailed, and myself subjected to unkind remarks, believing, as I do that the subject is of so much importance as to throw all personal considerations into the shade.

The plan then is this: At the junction of the canal with the Illinois River let a railroad be constructed, to extend to the confluence of the Ohio and Mississippi, following, as near as may be, the third principal meridian, and let the credit of the State be pledged for the funds necessary to complete both works. This would be doing equal and impartial justice to three of the most prominent portions of the state, and would create a unity of effort and concert of action that would overcome every obstacle. The general government also would grant some of the unappropriated land on the contemplated road throughout its whole extent in aid of the undertaking, and that it can be accomplished with the means we can raise there can be no manner of doubt. When made, its benefits will be incalculable. It will make the southern and interior counties, cause them to settle, raise the value of their lands (which are intrinsically as good as any), and furnish the means of transportation for their products either to a Northern or Southern market, of which they are now destitute.

It is a stupendous project, but one so easy of accomplishment, so just, so equal, and so well calculated to revive the drooping energies of the South and of the interior, that no doubt can be entertained, if our effort is made at the approaching session of the legislature, but

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that the canal and the road will be under contract in less than six months after the loan is authorized.

No sectional objections can operate successfully against the project, nor will the people complain of a loan the benefits of which are to be so general and so important. Posterity will have no cause of complaint if we do leave them a debt to pay, when at the same time we leave them the most ample means for discharging it. These things have not been regarded in the proper light. No objections should ever be made to incurring such debts when the fund is left out of which to pay them. As well might the heir object to taking his estate of half a million because encumbered by a mortgage of two hundred thousand dollars. By a united, zealous effort at the next session, an artificial artery through the heart of our State, the fairest and richest in the Union, can be made, which will not be surpassed by the stupendous achievements of a similar kind in the other and old states.

To avoid jealousies and heart-burnings, let the expenditures on both works commence at the same time, and be prosecuted with equal energy, and when this main artery is finished, it will not be long before smaller ones, branching off to the Wabash and Upper Mississippi, will be constructed. Then Illinois will rival any other State of our vast confederacy, not excepting even that which is so proudly, yet so justly styled the Empire State.

To ascertain the interests that can be brought to bear in its favor, take a map of the State and trace upon it the proposed route, and notice the many important and flourishing counties and towns it will pass through and which it will benefit.

Assuming Utica or Ottawa as the point at which the canal will terminate, the mouth of the Ohio bears from it some few miles west. To reach it, the road would pass through La Salle, McLean, Macon, a part

of Bond, Clinton, Washington, Perry, Jackson, Union and terminate as above in Alexander County. Pursuing nearly a direct line, it would pass through Bloomington, Decatur, and Vandalia, where it would intersect the National Road, Carlyle, New Nashville, Pinckneyville, Brownsville, Jonesboro, all seats of justice of the counties in which they are situated. Along the whole route, especially on the southern portion of it, abundant materials of the best kind can be had to construct the work. The distance from one extremity to the other, on a straight line, is only 300 miles, and the necessary deviations from that course will not make it more than 350 miles.

Three fourths of it, that is to say, from Utica or Ottawa to Pinckneyville, in Perry County, the surface of the country, so far as you can determine by the eye, is level or undulating; the remainder is hilly, but by no means mountainous.

Taking the estimate cost of the Alton and Springfield Road as date, which is on an average fraction over \$7000 per mile, the cost of this will not exceed \$2,500,000, a sum insignificant indeed, when we consider the immense benefits to ourselves and to posterity that must flow from its expenditure for such an object.

Allowing fifteen miles an hour as the maximum of speed upon it, a locomotive with its train of cars can kindle its fire at Ottawa in the morning and on the next rekindle it at the junction of the Ohio. From this point an uninterrupted communication exists at all seasons with every part of the world, and when the canal and the ~~al~~ lakes of the North are locked up by ice the markets of the South can be reached with certainty and speed by the railway and the Mississippi.

Let then the South, the interior, and the North unite---let the project be submitted at the coming session, let the loan be authorized, and let us all enter upon it with that determined spirit which should

characterize all great undertakings and success is certain. They who shall be instrumental in its commencement and completion will have erected for themselves a monument more durable than marble, and throughout all future time will receive, as they well deserve, the grateful thanks of a generous people.

I hope some gentleman may feel sufficient interest in this matter to consider it maturely and give the result of their deliberations to the public through the newspapers. It is a great, magnificent and feasible project. It can---it will be accomplished.

I am, sir, very respectfully, your obedient servant,

Sidney Preese.

This letter was followed by public meetings along the line, and was favorably commented on by the press, especially by the Sangamo Journal, then, as now, published here. The friends of this road wished you to perceive to identify it with the canal and by a united and vigorous effort, carry both measures. The canal was the only public work contemplated by our state, and I proposed a union of the North and South on these two measures---the canal and the road. At the called session of the legislature, which followed it in '35-'36, I found Mr. Holbrook at Vandalia, then a stranger to me, endeavoring to procure charters for manufacturing purposes, as I understood. Perceiving him to be a man of great intelligence and expanded views, I unfolded my plans to him, and seizing upon the project which had been started in 1818, to build a city at the mouth of the Ohio, which the projectors, Gov. Bond and others, had then denominated "Cairo," he fell into my views, and being a man of great energy, proposed the formation of a company to construct the road and build the city. In the meantime, the friends of the road in the legislature, among whom was Mr. Murphy, the

present member from Perry, and Judge Thomas of Morgan, now also in the house, attempted and came near succeeding to attach it to the canal bill, and promising the credit of the state for \$500,000 to each. Defeated in this by a few votes, its friends then asked for a charter, which the legislature readily granted, and application was at once made to congress for the right of way and a preemption. The memorial was referred to the committee on public lands of the house, from which Mr. Casey, now of our house of representatives, made a very able and favorable report, which was extensively read and circulated. And here let me say that if the legislature had then attached our road to the canal, and lent to each the credit of the state, then, unimpaired, for one-half million of dollars, we would never have been involved in the embarrassments of the internal improvement system, which was adopted at the next regular session, '36-37, and of which you^r was a member, and for which you voted. I do not censure you nor any other man for so voting. You were carrying out the will of the people, as loudly, aye, clamorously, expressed by them, and are no more responsible for the consequences than the instrument by which a deed is done. It was the act of the people, a frenzy you may call it, which neither you nor I had the means of resisting. On the establishment of this system the state applied to the company to surrender its charter, after the company had, at great expense, procured the service of its, president, A.M. Jenkins, Esq., then speaker of the house, and of Mr. Holbrook, to proceed to Washington to assist in procuring the preemption. This the company readily did, on the pledge of the state that the road should be made from Cairo, through Vandalia, Shelbyville, Decatur, and Bloomington, to Peru, and thence to Galena. We all know the fate of the system, and after an expenditure of more than one million of dollars on this road, it was abandoned.

p. 286 out

Immediately upon this, as an act of sheer justice, the State at once incorporated the Great Western Railway Company, in '42-43, and from the day I first broached the subject, to this day, I have not ceased in my efforts to accomplish the object.....

THESE THINGS BEING DONE, I SHALL BE ABLE TO
GIVE YOU A FULL ACCOUNT OF THE
PROGRESS OF THE WORK, AND OF THE
RESULTS OF THE EXPERIMENTS.

24th Dec 1850
[Signature]
MEMORIAL OF DECEMBER 28TH, 1850.

To the honorable the Senators and Representatives of the people of Illinois in General Assembly convened:

The memorial of Robert Schuyler, George Griswold, Gouverneur Morris, Jonathan Sturges, Thomas W. Ludlow, and John F. A Sandford of the City of New York; and David A. Neal, Franklin Haven and Robert Rantoul, Jun, of the City of Boston and vicinity, respectfully represents:

That having examined and considered an act of Congress of the United States, whereby land is donated by the United States for the purpose of insuring the construction of a railroad from Cairo, at the mouth of the Ohio river, to Galena and the northwestern angle of the State of Illinois, with a branch extending to Chicago on lake Michigan, on certain conditions, therein expressed; and having also examined the resources of the tract of country through which it is proposed that the said railroad shall pass, and the amount of cost, and the space of time necessary for constructing the same, the subscribers propose to form a company, with such others as they may associate with them, including among their number persons of large experience in the construction of several of the principal railroads of the United States, and of means and credit sufficient to place beyond doubt their ability to perform what they hereinafter propose, make the following offer to the State of Illinois for their consideration:

The company so ⁰formed by the subscribers will, under the authority and direction of the State of Illinois, fully and faithfully perform the several conditions, and execute the trusts, in the said act of Congress contained. And will build a railroad with branches between the termini set forth in said act, with a single track, and complete the same, ready for the transportation of merchandise and passengers, on or

before the fourth day of July, which will bein the year of our Lord eighteen hundred and fifty four. And the said railroad shall be, in all respects, as well and thoroughly built as the railroad running from Boston to Albany, with such improvements thereon as experience has shown to be desirable and expedient, and shall be equipped in a manner suitable to the business to be accommodated thereby. And the said company, from and after the completion of the said road, will pay to the State of Illinois, annually,---- per cent of the gross earnings of the said railroad, without deduction or charge for expenses, or for any other matter or cause; provided, that the State of Illinois will grant to the subscribers a charter of incorporation, with terms mutually advantageous with powers and limitations, as they, in their wisdom, may think fit, as shall be accepted by said company, and as will sufficiently remunerate the subscribers for their care, labor, and expenditure in that behalf incurred, and will enable them to avail themselves of the lands donated by the said act to raise the funds, or some portion of the funds, necessary for the construction and equipment of said railroad.

LAND GRANT ACT OF SEPTEMBER 20TH, 1850.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

That the right of way through the public lands be, and the same is hereby, granted to the State of Illinois for the construction of a railroad from the southern terminus of the Illinois and Michigan canal to a point at or near the junction of the Ohio and Mississippi rivers, with a branch of the same to Chicago, on Lake Michigan, and another via the town of Galena, in said State, to Dubuque, in the state of Iowa, with the right also to take necessary materials of earth, stones, timber, etc., for the construction thereof: Provided, that the right of way shall not exceed 100 feet on each side of the length thereof, and a copy of the survey of said road and branches made under the direction of the Legislature, shall be forwarded to the proper local land offices, respectively, and to the general land office at Washington city, within ninety days after the completion of the same.

Sec. 2. And be it further enacted, That there be, and is here granted to the State of Illinois, for the purpose of aiding in making the railroad and branches aforesaid, every alternate section of land designated by even numbers, for six sections in width on each side of said road and branches; but in case it shall appear that the United States have, when the line or route of said road and branches is definitely located by the authority aforesaid, sold any part of any section hereby granted, or that the right of preemption has attached to the same, then it shall be lawful for any agent or agents to be appointed by the Governor of said State, to select, subject to the approval aforesaid, from the lands of the United States most contiguous to the tier of sections above specified, so much land in alternate sections, or parts of sections, as shall be equal to such lands as the United States have sold, or to which the right of preemption has attached as

aforesaid, which lands being equal in quantity to one half of six sections in width on each side of said road and branches, the State of Illinois shall have and hold to and for the use and purposes aforesaid: Provided, that the lands to be so located shall in no case be further than fifteen miles from the line of the road: And, further provided, the construction of said road shall be commenced at its southern terminus, at or near the junction of the Ohio and Mississippi rivers, and its northern terminus upon the Illinois and Michigan canal, and simultaneously, and continued from each of said points until completed, when said branch roads shall be constructed, according to the survey and location thereof: Provided further, that the lands here granted shall be applied to the construction of said road and branches, respectively, in quantities corresponding with the grant for each, and shall be disposed of only as the work progresses, and shall be applied to no other purpose whatsoever: And provided, further, that any and all lands reserved to the United States by the Act entitled "An Act to grant a quantity of land to the State of Illinois, for the purpose of aiding in opening a canal to connect the waters of the Illinois river with those of Lake Michigan" approved March second, eighteen hundred and twenty seven, be, and the same are hereby reserved to the United States from the operation of this Act.

Sec. 3. And be it further enacted, That the sections and parts of sections of land which, by such grant, shall remain to the United States within six miles on each side of said road and branches, shall not be sold for less than double the minimum price of the public lands when sold.

Sec. 4. And be it further enacted, That the said lands hereby granted to the said State shall be subject to the disposal of the legislature thereof, for the purposes aforesaid and no other; and the said

railroad and branches shall be and remain a public highway, for the use of the Government of the United States, free from toll or other charge upon the transportation of any property or troops of the United States.

Sec. 5 And be it further enacted, That if the railroad shall not be completed within ten years, the said State of Illinois shall be bound to pay to the United States the amount which may be received upon the sale of any part of said lands by said State, the title to the ~~per-~~ residue of said lands shall reinvest in the United States, to have and hold the same in the same manner as if this Act had not been passed.

Sec. 6. And be it further enacted, That the United States mail shall at all times be transported on the said railroad under the direction of the Post Office Department, at such price as the Congress may by law direct.

Sec. 7. And be it further enacted, That in order to aid in the continuation of said Central Railroad from the mouth of the Ohio river to the city of Mobile, all the rights, privileges, and liabilities hereinbefore conferred on the State of Illinois shall be granted to the states of Alabama and Mississippi respectively, for the purpose of aiding in the construction of a railroad from said city of Mobile to a point near the mouth of the Ohio river, and that public lands of the United States, to the same extent, in proportion to the length of the road, on the same terms, limitations, and restrictions in every respect, shall be, and is hereby, granted to said states of Alabama and Mississippi respectively.

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THE CHARTER TAX OF THE ILLINOIS CENTRAL RAILROAD.

BY

HOWARD GRAY BROWNSON.

MAY 15th, 1909.

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN ECONOMICS IN
THE GRADUATE SCHOOL OF THE UNIVERSITY OF ILLINOIS.

C O N T E N T S

CHAPTER I.

HISTORY AND LEGAL ORGANIZATION OF THE ILLINOIS CENTRAL SYSTEM.

Page

Early history of the project--Construction of the Railroad--Financial difficulties--Steady growth to 1871--Southern expansion 1871-1886--Increase in mileage 1886 to 1908--Intensive development of the System--Legal and financial organization of the Company.

Page 1

CHAPTER II.

HISTORY OF THE CHARTER TAX

Public character of the Illinois Central project--The tax in the legislature--analysis of charter provisions--the tax 1855-1870--Constitutional conventions of 1862 and 1869--Legal interpretation of the tax provisions of the charter.

Page 41

CHAPTER III.

HISTORY OF THE BACK TAX SUIT OF 1907 AND NATURE OF THE CHARGES AGAINST THE COMPANY.

Suit the result of complex organization of company and development of scientific accounting--existing method of distributing earnings unscientific--history of the case--nature of the suit.

Page 71

CHAPTER IV.

LEGAL PRINCIPLES INVOLVED IN THE SUIT.

Importance of legal principles involved--Question of Pleading--Technical statement of claim--Constitution of 1870 and settled accounts--Contemporaneous construction of charter--What are operating revenues of corporation--Interstate commerce.

Page 82

CHAPTER V.

THE DETERMINATION OF GROSS RECEITS SUBJECT TO THE CHARTER TAX

Tax should be construed in accordance with powers of corporation--company authorized to construction and operate charter lines--What are railway operations--Common law functions of carrier--

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Optional functions of railroad--summarization of principles--Revenue from Transportation--Revenue from operations other than transportation--Income incident to operations--Income from investments--Revenue from outside operations--Cairo Bridge arbitrary--Miscellaneous--

Page 96

CHAPTER VI.

THEORETICAL CONSIDERATIONS INVOLVED IN THE DISTRIBUTION OF GROSS RECEIPTS BETWEEN SYSTEM SUBSIDIARY ROADS.

Divisions of an undertaking created for legal or accounting purposes must be considered independent entities--transactions between nominal entities similar to ordinary commercial transactions--Law of price as it affects system accounting--Railway rates are prices obtained for creation of place utility--Cost and value of service theories in accordance with law of price--cost of service theoretical standard for system pre-rating, but value of service may be used--Equal mileage division of rates unscientific--Modifications of equal mileage principle--Per centage arrangement--Division of through system rates in accordance with locals is in accord with value of service theory--Summation of previous argument--Conclusions.

Page 176

BIBLIOGRAPHY

Page 188.

INTRODUCTORY.

The so-called Charter Tax of the Illinois Central Railroad Company is a payment to the state of Illinois annually of seven per cent of the gross earnings of the lines constructed in 1851-1857 under authority of the charter of February 10th, 1851. It is the result of an agreement represented by the charter entered into by the State and the Railroad Company whereby the latter received a perpetual charter, a grant of nearly two million six hundred thousand acres of government land and exemption from all local taxation in return for a minimum annual payment to the State of seven per cent of the earnings of the charter lines.

A study of the tax is of interest for two reasons: first, the charter tax has played an important part in the financial and political history of the State; second, the recent suit instituted against the Railroad for the collection of some fifteen million dollars alleged to be due, in back taxes and for a general accounting of the railroad records is not only one of the most spectacular, but also one of the most important suits ever commenced in Illinois, while many difficult and important legal and accounting problems are involved. In chapters I and II of Part I the questions connected with the history of the tax are discussed; in chapters III, IV, V and VI of Part II the legal and accounting questions of importance in the suit are examined and the position of the contending parties analyzed.

CHAPTER I.

HISTORY AND LEGAL ORGANIZATION OF THE ILLINOIS CENTRAL SYSTEM.

The Illinois Central Railroad is an important link in the transportation system of the United States and the history of the company dates back to the Internal Improvement agitation of the early Thirties. A glance at the map of Illinois shows that while the state is encircled by natural waterways the interior counties must depend on artificial means of transportation. The construction of the Central in 1851 was due to this demand for internal communication.

The first suggestion in regard to the Illinois Central was made as early as 1830 by Governor Coles², but the definite action was not taken until 1836 at which time the (Illinois)-Central Railroad Company was chartered to build a railroad from "the mouth of the Ohio...to a point on the Illinois river at or near the termination of the Illinois-Michigan Canal."³ Before active construction work commenced the state entered upon its celebrated Internal Improvement plan of 1837 and the project was abandoned by the private company.

The essential feature of the Internal Improvement plan was the construction of the Central from Cairo to Galena together with certain lateral branches to the state lines. The Legislature of 1837 authorized appropriations of something over ten million dollars for railroad building and a large part of the amount was actually expended on various projects; the expenditures on the Central alone being nearly a million dollars.⁴ The great plan ended in a disastrous fiasco, how-

1 Cf. Early Illinois Railroads, H.G. Brownson, in Proceedings Illinois Historical Association, 1907, pp
 2 Illinois Monthly Magazine, Vol. I, No. I, October, 1830.
 (Continued on Page 4)

THEORY OF THE ...

The first part of the ...

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ever, and no attempt was made by the government to finish the railroad. The failure of the Internal Improvement projects left the state virtually bankrupt, while its industrial development was checked for a decade.

After several years of inactivity the promoters of the Central Railroad of 1836 again agitated the building of the road and on March 6th, 1846, the Great Western Railway of Illinois was chartered.¹ This company was a subsidiary of the Cairo City and Canal Company, a very curious organization, promoted by Mr. Darius B. Holbrook of New York, to build a great metropolis at what is now Cairo and otherwise develop the resources of the commonwealth. The new railroad made considerable expenditures at Cairo and did some grading, but financial difficulties made it impossible to continue the work. The directors were finally forced to abandon the undertaking and the charter was repealed in 1847.² Four years later, or on February 10th, 1849, when the prospects of federal aid were favorable, the Great Western was reincorporated with its former powers.³ In addition provision was made that it should receive any government lands donated to the state for constructing the railroad.⁴ The charter was a liberal one and differed in few respects from the typical charters of the period.

In the meanwhile the people of Illinois realized that investors would not risk the capital necessary to complete the enterprise without assistance from the government and the Legislature naturally turned to Congress. A grant of public lands had been made in 1828 for the Illinois-Michigan Canal and the Illinois delegation at Washington now advocated similar grant for the Central.

3 (Continued from page 3) Laws of Illinois, Session, 1835-6, pp 129f

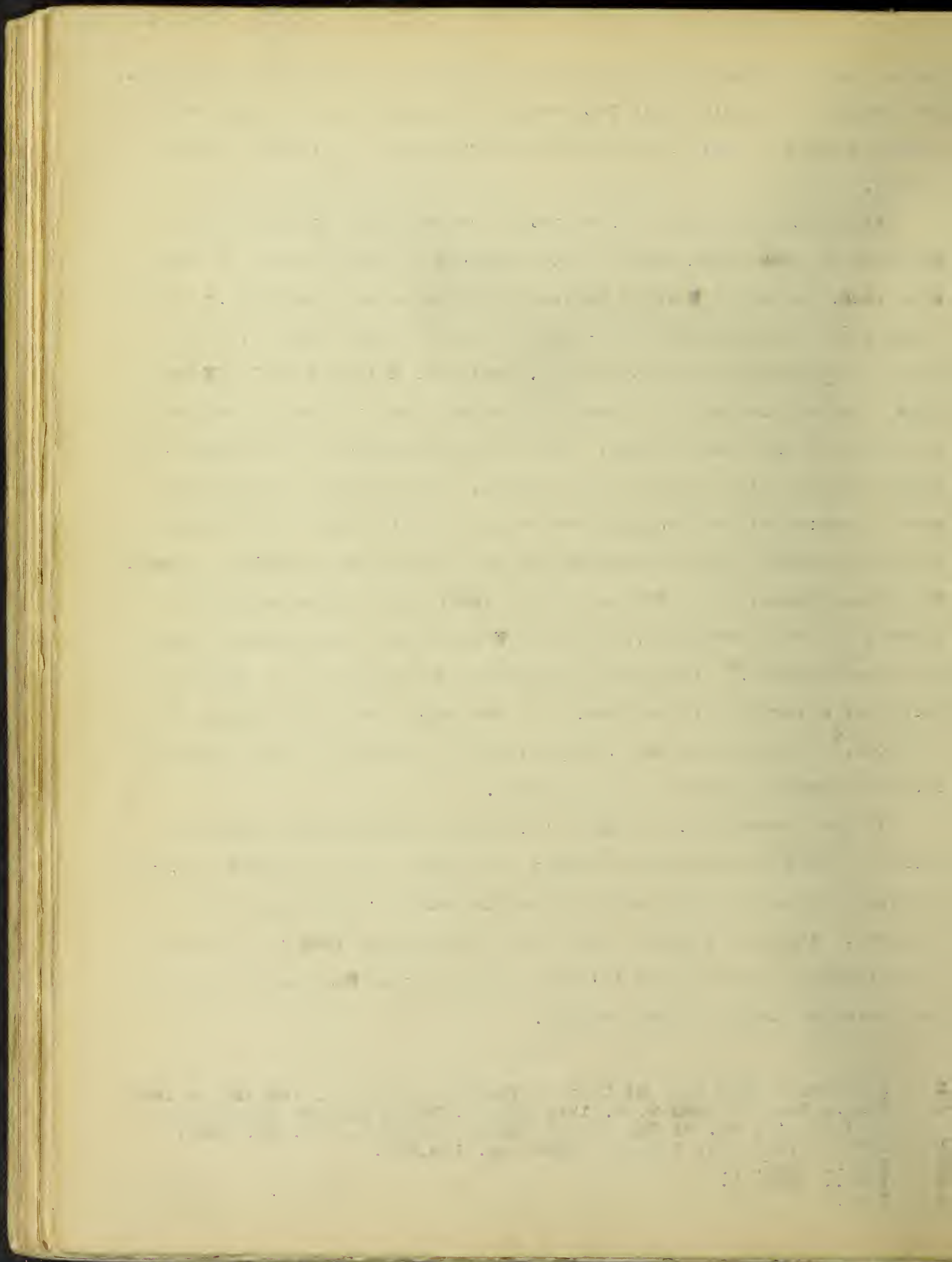
4 Ibid., Session 1836-7, p. 121; Newton, Early Railway Legislation in Illinois, pp. 21-23; Chicago Daily Democrat, Dec. 24, 1849.

1 Laws of Illinois, Session, 1843, pp. 199, 200.

2 Ibid., 1845, p.

3 Ibid., 1849, p.

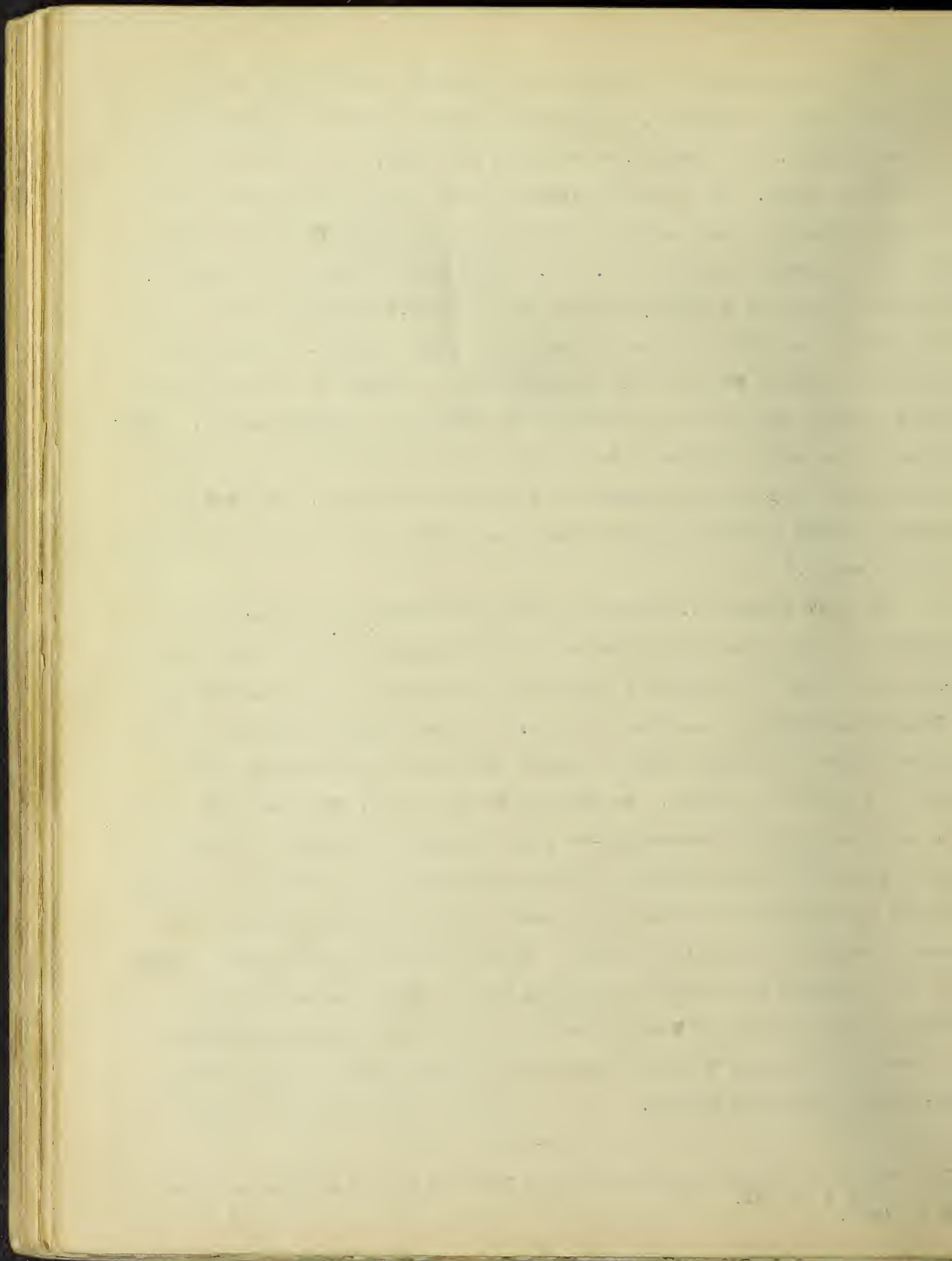
4 Ibid.



The proposal was an innovation in national affairs and at first met with strong objection, especially from the eastern and southern representatives. The opposition was due, it seems, to the character of the first bills. The plans of 1843 to 1849, with one exception, were for a preemption right granted directly to the Great Western Railway or other private corporations, i.e. the company could enter a specified amount of land by paying the usual price of \$1.25 per acre and its profit would come from selling the land at a higher price. During this period the Great Western was distrusted and disliked in Illinois while many congressmen had strong ~~objections on constitutional grounds~~. Thus, despite the able efforts of Senator Sidney Breese and certain of his colleagues, the early attempts met with little success. In 1847 and again in 1849 preemption bills passed the Senate, but were not taken up in the House.¹

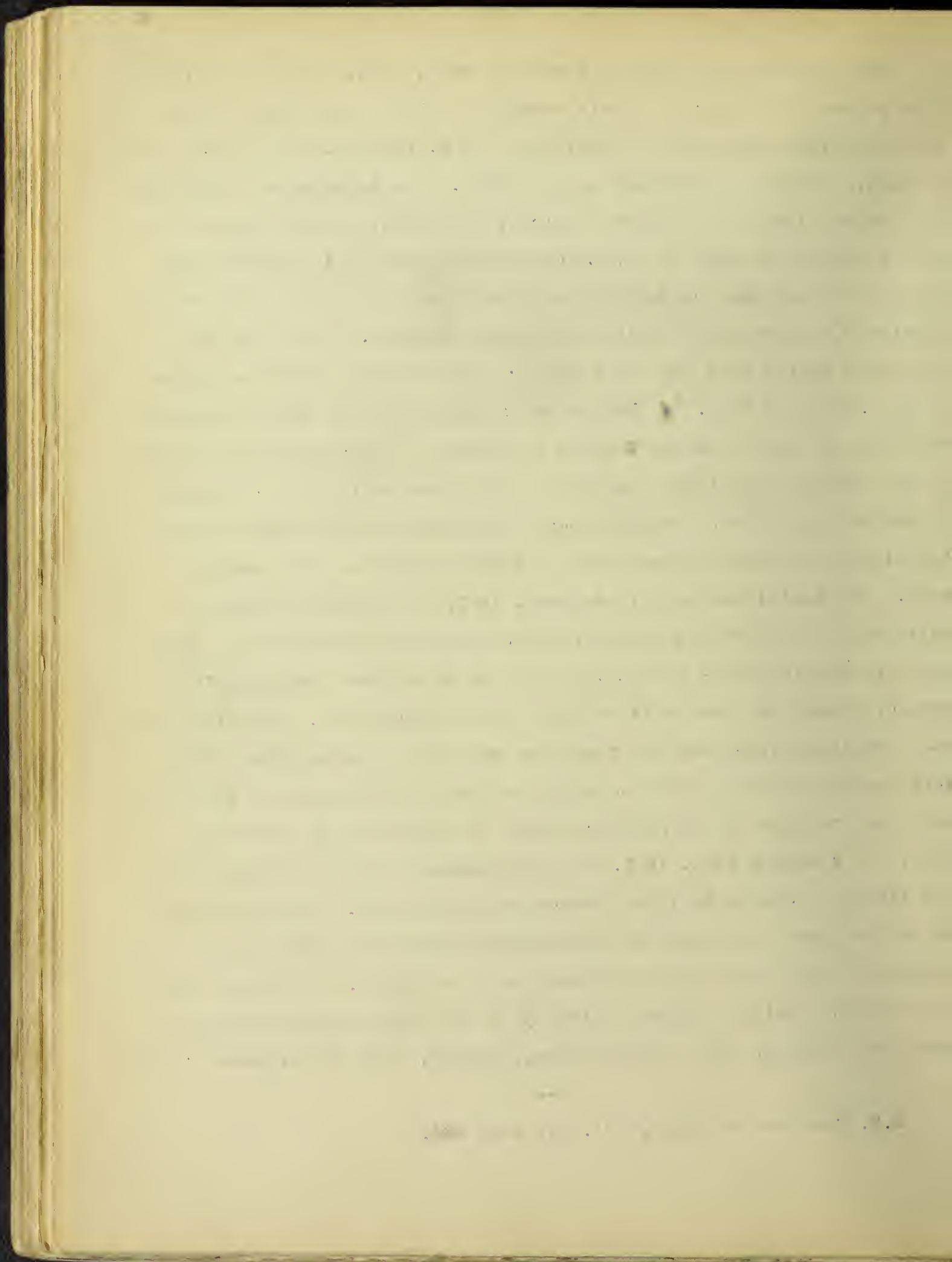
In 1847 Stephen A. Douglas entered the Senate and he adopted a different plan from that of Breese. The proposals of the latter were strictly local in character; they were of interest to a single state. Douglas advocated a national project: a highway which would connect the great lakes at Chicago with the upper Mississippi at Dubuque and the Gulf of Mexico at Mobile. As Senator Stewart said: "I regard this work as a great national enterprise--a great national highway". To facilitate its construction Congress was asked to donate to the states through which the proposed railroad would pass a grant of land equal to six square miles to the mile of road. It was the first systematic attempt of the national government to develop the internal resources of the Mississippi Valley and West by means of the public domain and although a novel undertaking Senator Douglas was finally able to secure favorable action in both houses.

1 Sanborn, Congressional Grants of Land in Aid of Railways, Chapters I and II.
2 Ibid.



The portion of the act of September 20th, 1850, relating to Illinois provided for a grant of six sections of land to the mile of road for a railroad from Cairo to Dunleith, now E. Dubuque, with a branch to Chicago, the grant being made to the state. The Legislature could dispose of the land as it pleased subject, of course, to the restriction that it should be used in constructing the railway. Any profit that the state could make by building the road itself or giving the land to a private company would go into the state treasury. The total land in the grant varied from two and a half to three million acres according to the length of line.¹ Before the final passage of the act Douglas had secured from the Great Western a release of its charter, which gave it the right to any lands coming into state possession for the purpose of building the road, contingent upon acceptance of the release by the Legislature and the incorporation of a new company to undertake the work. The Legislature met in January, 1851, and several methods of building the line were presented, including state construction. Since these proposals relate directly to the tax provisions they are given in greater detail in Chapter II and need not be given here. The plan that was finally accepted was one presented by certain capitalists of New York and Boston who offered to build the railroad and pay the state an agree per centage of the gross receipts in return for the grant of land. On February 10th, 1851, the memorialists were incorporated into the Illinois Central Railroad Company by special act. The charter was carefully drawn and stated in considerable detail the powers of the corporation and the method of disposing of the grant. In return for the land the railroad agreed to pay 5% of the gross receipts and the usual state taxes, with the provision, however, that the minimum of the

¹ U.S. Statutes at Large, Vol. ix, page 466.



two should be seven per cent of the gross receipts. The company was exempt from the payment of all other state and local taxes.¹

The passage of the Act marks an epoch in the history of Illinois. At last, after years of discouragement and failure, the construction of the Illinois Central was assured. The more sanguine looked forward to the time ~~the~~ when the central counties of the state would be thickly settled and the land grant had paid off all of the burdensome Internal Improvement debt.

On the 19th of March, 1851, or slightly over a month after the passage of the charter, the promoters accepted the provisions of the act and the company was legally organized.² But the chartering of a private corporation with liberal powers and the granting to it of nearly three million acres of public land was merely a preliminary step in the building of the road. The project involved great engineering and financial problems which made the building of the road far from easy. Fortunately the men who had undertaken the enterprise were familiar with railroad work and possessed large capital.

The engineering department was organized in April, 1851, with Mr. R. B. Mason in charge, and the surveys and estimates were finished by the ^aAutumn of that year. After some difficulty the present route was selected and the company was in a position to commence active construction.³ The estimated mileage was 699 miles and the cost \$16,537,212, or \$23,700 per mile.⁴

The financial plan of construction was based on the land grant. \$12,000,000 7% and \$5,000,000 6% construction land bonds were issued as a mortgage on the railroad and on 2,000,000 acres of land. The mortgage was so framed that the receipts from the sale of this land would extinguish the principal of the debt at or prior to the maturity of the loan, thus freeing the company from funded debt.⁵

1 Laws of Illinois, 1851, p
2 Ackerman, History of the Illinois Central R.R., pp 21-60.
3 Ibid., p. 82; 4Report of President Schuyler, Bd of Directors
September 12, 1851

An amount of capital stock equal to the cost of the road was to be issued to the promoters and purchasers of bonds at a nominal amount. The stock and the remaining five hundred thousand acres of land not subject to the mortgage of September 13th, 1851, formed a reserve to provide for emergencies. It was expected, however, that the bonds would be amply sufficient to meet the cost of construction and that eventually the shareholders would receive the railroad without any funded debt, due to the sale of the public land, and several hundred thousand acres of land in addition, at an expenditure of only a few dollars a share.¹

In order to provide for incidental expenditures two million of stock was issued early in 1851 and a payment of \$20 per share on one million and \$10 per share on the second million made.² In February of the following year \$4,000,000 7% mortgage bonds were sold at par and ^{and 7%} in the following June £1,000,000 ~~x 6%~~ bonds were disposed of in England at a slight premium.³ Twelve months later another loan of \$3,000,000 7% bonds was sold, also at par.⁴ The credit of the company was excellent and the construction of the road was placed on a cash basis.

These favorable financial conditions did not continue. By October 1853 Illinois Central securities were sold at a discount and a steady decline occurred during the following months until the summer and fall of 1854 when first mortgage ^{7%} bonds were quoted on Exchange at 60-65.⁵ This was due in part to general stock market depression; and in part to lack of confidence in the railroad; and also to fraudulent actions by the President of the New York and New Haven, Robert Schuyler, who was also President of the Central.⁶ As a result the company experienced

- 1 Report of President Schuyler to Board of Directors, September 12, 1851; mortgage of September 13, 1851.
- 2 Chicago Daily Democrat, Aug. 17, 1853.
- 3 Ibid., Feb. 16, 1852.
- 4 American Railway Journal, May 14, 1853.
- 5 Chicago Daily Democrat, August 1, 1853.
- 6 Quotations in Railway Times (London), 1853 and 1854
- 7 Railway Times, Nov. 14, 1854;

great difficulty in securing funds necessary to complete the road (at reasonable rates). The remainder of the construction mortgage^{bonds} amounting to approximately four and a half million dollars ~~was~~^{were} sold in 1854 to 1856 at market quotations, often as low as \$600 per bond, the average being about \$650.¹ By selling these securities at this low rate the receipts anticipated from the \$17,000,000 loan was reduced some sixteen hundred thousand dollars, while various causes increased the cost of construction by several millions. To meet this deficit in the original estimate the three hundred thousand ^{acres of} so-called free land was mortgaged in 1855 and an additional, or second mortgage placed on the road for \$3,000,000 7% ~~Bonds~~ Free Land bonds due in 1860.² This issue was sold for \$2,079,876.61, or \$694 per bond.³ In addition the company in 1856 issued \$900,000 8% optional right bonds, practically convertible debentures, payable after 1858, which were sold at par⁴ \$945 per bond.⁴ At the same time the miscellaneous obligations such as notes, bills payable, etc., ~~was~~^{were} increased to \$3,700,551. ~~—~~ (October 20th, 1857)

During this period the amount of stock issued amounted to \$14,034,700 (December 31, 1856) on which there was realized in cash \$3,558,615 or an average of \$25.20 per share.⁵ The stock was issued assessable. From 1853 to 1855 \$1,281,305.02 was received from the sale of lands not subject to the mortgages of 1851 and 1855.⁶ By these various expedients sufficient funds were obtained to construct the rail road.

The actual construction work was pushed with vigor during the years from 1851 to 1857. The surveys were completed in the fall of the earlier year and ground was broken at Cairo and Chicago in December.

- 1 Railway Times, May 5, 1855.
- 2 Annual Report, Illinois Central R.R., 1855, 1856.
- 3 Ibid., 1856.
- 4 Ibid.
- 5 Ibid.; 1857.
- 6 Ibid., 1855.

1. The first part of the paper is devoted to a general
discussion of the problem. It is shown that the
problem is equivalent to a system of linear
equations. The system is then solved by the
method of least squares. The results are
summarized in the following table.

Parameter	Value
a_1	0.1234
a_2	0.5678
a_3	0.9012
a_4	0.3456
a_5	0.7890

2. The second part of the paper is devoted to a
detailed analysis of the results. It is shown that
the results are in good agreement with the
theoretical predictions. The results are
summarized in the following table.

Parameter	Value
b_1	0.2345
b_2	0.6789
b_3	0.0123
b_4	0.4567
b_5	0.8901

3. The third part of the paper is devoted to a
discussion of the results. It is shown that the
results are in good agreement with the
theoretical predictions. The results are
summarized in the following table.

Parameter	Value
c_1	0.3456
c_2	0.7890
c_3	0.1234
c_4	0.5678
c_5	0.9012

4. The fourth part of the paper is devoted to a
discussion of the results. It is shown that the
results are in good agreement with the
theoretical predictions. The results are
summarized in the following table.

Parameter	Value
d_1	0.4567
d_2	0.8901
d_3	0.2345
d_4	0.6789
d_5	0.0123

5. The fifth part of the paper is devoted to a
discussion of the results. It is shown that the
results are in good agreement with the
theoretical predictions. The results are
summarized in the following table.

Parameter	Value
e_1	0.5678
e_2	0.9012
e_3	0.3456
e_4	0.7890
e_5	0.1234

TABLE I
Summary of results for the first part of the paper.

Parameter	Value
a_1	0.1234
a_2	0.5678
a_3	0.9012
a_4	0.3456
a_5	0.7890

TABLE II
Summary of results for the second part of the paper.

Parameter	Value
b_1	0.2345
b_2	0.6789
b_3	0.0123
b_4	0.4567
b_5	0.8901

TABLE III
Summary of results for the third part of the paper.

Parameter	Value
c_1	0.3456
c_2	0.7890
c_3	0.1234
c_4	0.5678
c_5	0.9012

TABLE IV
Summary of results for the fourth part of the paper.

Parameter	Value
d_1	0.4567
d_2	0.8901
d_3	0.2345
d_4	0.6789
d_5	0.0123

TABLE V
Summary of results for the fifth part of the paper.

Parameter	Value
e_1	0.5678
e_2	0.9012
e_3	0.3456
e_4	0.7890
e_5	0.1234

The road was placed under contract in June 1852,¹ the work being divided into a number of sections, and active construction was under way by the end of that year.² Considerable difficulty was experienced in obtaining a charter from the city of Chicago and it was not until June 14th, 1852 that this was granted.³ In the meanwhile arrangements had been made with the Michigan Central for use by the latter of the Central's tracks from Chicago to Calumet, now Kensington, and May 21, 1852 this portion of the road was finished as far as the city limits.⁴ After the city franchise was secured the track was extended to the Chicago river ^{on} ~~along~~ the company's right of way along the lake front.⁵ From 1853 to 1856 extensive passenger and freight stations, shops, etc., were erected in the territory north of 14th street.⁶

In the meanwhile the construction of the remainder of the road was progressing ^{satisfactorily} ~~rapidly~~. The work was not handicapped by financial difficulties and a record was established for rapid construction. The track from Bloomington to La Salle was completed on May 16, 1853, the Main Line, Galena branch, and the Chicago branch as far south as Mattoon ~~was~~ ^{was} in operation by the middle of June, 1855, and the entire road was finished on September 27th, 1856.⁷ At times the work was delayed by troubles with contractors and many difficulties were experienced on account of the distance from settled communities, but these were not serious obstacles.

In 1857 the Illinois Central Railroad was the best build railroad in the west and the equal of most eastern lines. The total cost of construction and equipment to December 31st, 1857 was \$26,568,017.61, or \$37,600 per mile.⁸ Buildings were of a permanent character; the road

- 1-2 American Railroad Journal, October 25th, 1856.
- 3 Chicago Daily Democrat, October to January, 1851 and 1852;
- 4 Ibid., May 22nd, 1852.
- 5 Ackerman, Historical Sketch Illinois Central R.R., pp. 80-85
- 6 Ibid; Annual Report, Illinois Central R.R., 1855, 1856.
- 7 American Railroad Journal, October 25th, 1856.
- 8 Annual Report, Illinois Central R.R., 1857; cf. Appendix, pp.

12-10-1906

Dear Sir,

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the above matter.

I am sorry to hear that you are not satisfied with the results of the examination of the specimens of the above named material.

I have been very busy lately and have not had time to devote to the study of the same.

I am sure that you will understand my position.

I am, Sir, very respectfully,
Yours truly,
J. H. [Name]

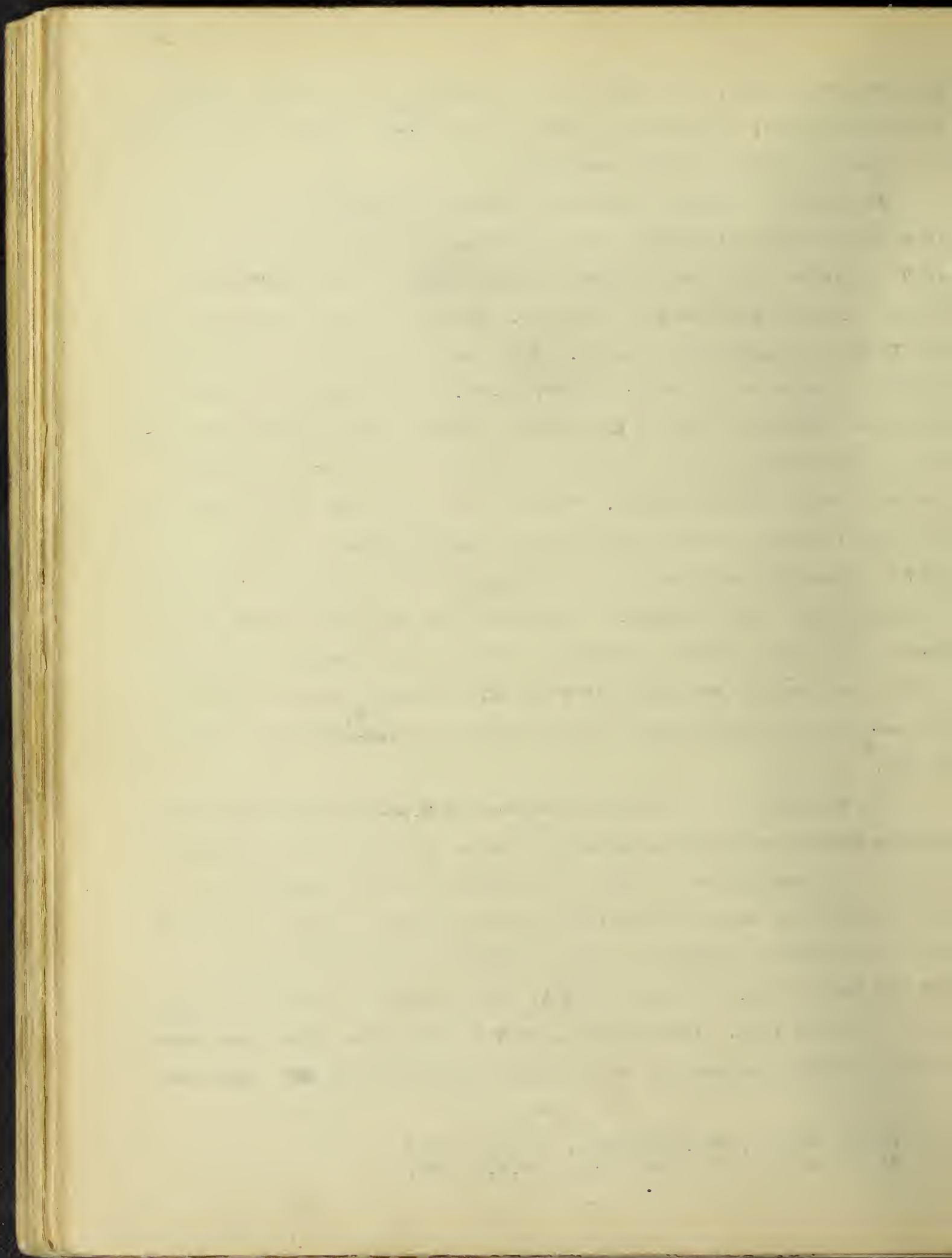
bed was well built, according to the standards of the time; bridges were substantial; equipment was ample and of ^{good} high quality; there were few curves or grades of any importance.

Although the actual construction work was finished in the fall of 1856 considerable difficulty was experienced in financial matters in 1857 and 1858. In order to meet building expenses some \$3,700,000 notes and bills payable were incurred, while the actual cash balance in New York was comparatively small. Steps had been taken to reduce the floating debt when the panic of 1857 broke. The company had over a # millions dollars in cash in England and Chicago and its credit was good, but in the emergency the officers were unable to realize their cash assets or even draw on London. For the first and only time in its history the Illinois Central was forced to suspend payment and on 1857 a temporary assignment of the property to the creditors was made to avoid formal receivership.¹ The crisis was met with vigor; the directors used their personal credit to relieve the company; assessments of \$10 per share in September 1857 and \$10 in March, 1858, were made; and the optional right bonds to the extent of \$2,500,000 were issued at par.²

The Assignment was removed *in August, 1858.* ~~the finances of the company placed on a thoroughly sound basis.~~ The directors took advantage of the opportunity to place the finances of the company on a thoroughly sound basis by calling for the full par value of the stock and thus providing sufficient cash to reduce the funded debt to the \$17,000,000 land grant bonds of 1851, the principal of which was provided for by the land. From October, 1857 to December, 1858, ~~some~~ ^{six} eight million dollars was paid in by the shareholders and by ~~1858~~ 1862 ~~some~~

1 Fisher Report, Railway Times, June 19, 1858.

2 Annual Report, Illinois Central R.R., 1858.



\$17,124,360 had been paid in in cash.¹ Further payments increased the cash paid in on the original stock to \$19,735,400.² These large payments permitted the company to retire the optional right and Free Land bonds at maturity and to reduce the floating indebtedness to a nominal figure.³ In 1863 and 1866 stocks dividends of \$2,119,930 and of \$1,881,100 were declared, while from 1858 to 1863 C cancelled Bond Scrip dividends, covering bonds cancelled by operations of the Land Department were granted to the extent of \$1,772,270. In 1870 the capital stock amounted to \$25,500,000 of which \$19,735,400 was represented cash investment and \$5,764,600 stock dividends.³

In the period from 1858 to 1870 the company adopted the policy of reducing the funded debt. \$15,946,272 received from the sale of the land grant was used to cancel the mortgage bonds of 1851-1875.⁴ In 1862 and again in 1867 an issue of \$2,500,000 6% currency bonds was made to refund the or purchase construction bonds.⁵ By the latter year the net funded debt was less than six millions as against capital stock of \$25,500,000. The original cost of the railroad was considerably greater than the total debt and capital stock.

As soon as sections of the railroad were constructed they were placed in operation, but it was not until the end of 1856 that the entire 705.5 miles was in use. The operations of the road in 1855 and 1856 were very satisfactory, but the panic of 1857 and the resulting agricultural depression of 1857-1860 proved disastrous to the company. In 1858 the gross receipts were slightly under \$2,000,000 or only \$2800 per mile. From that year they slowly increased to 1861 when they amounted to \$2,965,767.87. The effect of the Civil War and the accompanying prosperity of the upper Mississippi Valley was the rapid growth

1 Annual Report, Illinois Central Railroad, 1863.
 2 Ibid., 1855 to 1870.
 3 Ibid., 1855 to 1870.
 4 Ibid., 1855 to 1875.
 5 Ibid., 1863, 1867.

in receipts so that from 1867 to 1870 they amounted to over seven millions ^{annually} for the charter lines. This increase was caused in part, however by the ^{cistion} depression of the currency.

Up to 1863 the net earnings from operation were decidedly unsatisfactory, and it was not until that year that they were sufficient to meet interest on the funded debt. The reduction of the fixed charges through the action of the Land Department and the growth of gross receipts placed the income of the company on a satisfactory basis after that date. Sporadic cash interest dividends were paid from 1857 to 1863 when a regular cash dividend of eight per cent was declared. The rate was increased to ten per cent the following year where it remained for the next decade. However, the road itself never earned ten per cent dividends and it was only on account of the sales of the land grant that they were paid. Had it not been for the Land Office receipts the railroad would ^{not} have been profitable.*

The mileage constructed under the terms of the charter was 705.5 miles and this ^{was} ~~is~~ the only road owned by the Illinois Central R.R. Co. to 1907. In 1857 the Central was the leading railway in the central West and, naturally, exerted considerable influence on other roads in the territory. With the exception of small purchases of Ohio & Mississippi R.R. and Peoria & Oquaka R.R. bonds this influence was did not extend to financial assistance. A number of traffic ^{and trackage} arrangements, ~~and~~ however, were entered into. In order to secure connection with St. Louis a trackage agreement was made with the Terre Haute, Alton & St. Louis, ^{the} now St. Louis Division C.C.C. & St.L., whereby through passenger trains were run from Chicago to St. Louis via the I.C. to Mattoon and the T.H., A. & St.L. to Illinois town. More important were the relations with Galena & Chicago Union, Chicago & Northwestern and Chicago, Bur-

* For a fuller discussion of the influence of the Land Grant upon the finances of the railroad see chapter III, pp

The first part of the paper is devoted to a general
discussion of the problem. It is shown that the
problem is equivalent to the problem of finding
the minimum of a certain function. This function
is defined by the following expression:
$$F(x) = \sum_{i=1}^n \sum_{j=1}^m a_{ij} x_{ij} + \sum_{i=1}^n b_i x_i + \sum_{j=1}^m c_j x_j$$

where a_{ij} , b_i , and c_j are given constants, and
 x_{ij} , x_i , and x_j are the variables to be
determined. The problem is then reduced to
the problem of finding the minimum of this
function subject to the constraints:
$$x_{ij} \geq 0, \quad x_i \geq 0, \quad x_j \geq 0$$

The problem is then solved by the method of
Lagrange multipliers. The Lagrangian function
is defined by the following expression:
$$L(x, \lambda) = F(x) + \sum_{i=1}^n \lambda_i (x_i - 0) + \sum_{j=1}^m \mu_j (x_j - 0)$$

where λ_i and μ_j are the Lagrange multipliers.
The necessary conditions for a minimum are
then derived. It is shown that the minimum
value of the function is given by the following
expression:
$$F^* = \sum_{i=1}^n b_i \lambda_i + \sum_{j=1}^m c_j \mu_j$$

where λ_i and μ_j are the values of the
Lagrange multipliers at the minimum.

lington & Quincy between the main line and Chicago, and the Logansport, Peoria & Burlington from El Paso to Gilman. The Central was built in the form of a Y with one arm terminating at Chicago, the other at Dunleith and the foot at Cairo, without ~~any~~ connection between the two branches. From 1857 on the Illinois Central was an important ^{link} ~~connection~~ between Chicago and northern Iowa, but the company had no tracks of its own from the Galena and Dunleith branch to the former city. To obviate this difficulty trackage agreements were made, first with the G. & .CU. from Freeport, later with the C.&N.W. from Dixon and still later with the C.B. & Q. from Mendota, ^{and with the Chicago & Iowa} by which these respective companies agreed to haul Illinois Central trains and equipment between the main line and Chicago at agree-- specified amounts per train or car. This connection was very important and materially increased the traffic of the system. In ^{discussing} ~~connection~~ with the charter tax it is interesting to note that ~~the~~ earnings received from hauling ~~the~~ freight ^{on} ~~from~~ over these various foreign lines over and above the expense were separated from the gross receipts of the charter lines and were not subject to the tax of seven per cent. ^{similar to the one described} ~~A somewhat similar~~ arrangement was made with the LP&B by which the I.C. paid the latter company a fixed rental varying from \$50,000 to \$75,000 for the use of the former's tracks between El Paso and Gilman. Illinois Central trains were then run by the latter over this piece of road. No portion of the gross receipts were subject to the special tax.

In 1867 the Central extended into operations into Iowa by leasing for twenty years the Dubuque & Sioux City, formerly the Dubuque & Pacific, from Dubuque to Cedar Falls and also the Iowa Falls & Sioux City (under construction) from the latter point to Sioux City and the Cedar Falls & Minnesota (also under construction) from Cedar Falls northward. The terms of the lease were that the Central should operate the Iowa lines, receive all earnings, pay all expenses of operation and con-

Y

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struction, and pay the leased companies 35% of the gross receipts to 1877 and 36% from 1877 to 1887. At the expiration of the lease it was to be reimbursed for construction expenses. Certain minima per mile were specified, but the provisions were unimportant except in the case of the C.F.&M., where the minimum rental was \$113,000 per year, or \$1,500 per mile. The operation of the D&SC and the I.F. & S.C., especially the former, were profitable to the lessee, but the C.F.&M. seldom paid operating expenses and there was a heavy annual loss on that line which offset the gain on the other divisions. No purchase of securities was made. The lease, though not profitable in itself, was of considerable value on account of the increased traffic on the charter lines.

The operations of the Illinois Central in the first twenty years of its history were, in the main, quite profitable to its owners. At the end of the period eleven hundred miles were operated directly and the company had trackage rights over about two hundred more. Gross receipts were between eight and a half to nine million dollars a year with ~~four~~ net earnings.

With
~~Beginning with~~ the year 1871 the company entered upon a- the darkest period in its history. While the Central was built as a north and south line and part of the through route from Chicago to Mobile its business at the close of the Civil War was primarily with Chicago; its interests were confined to Illinois and Iowa; in other words it was a north and south railroad fulfilling the work of an east and west line. In The decade from 1870 to 1880 was a period of transition in the operations of the railroad and of radical changes in the economic affairs of the Mississippi Valley. In response to new conditions the road was forced to expand southward and in doing so it assumed responsibilities which threatened its stability and financial success. Moreover, its strictly northern interests suffered from various causes. In 1874 occurred the Chicago fire; in 1869-1870 and following the so-called Lake

Front Steal" alienated the good will of the people of the state; from 1871 to 1880 radical anti-railway legislation in Illinois and Iowa materially reduced the revenue of the company; most important of all, the territory of the Central was invaded by strong competitive railroads, especially the eastern trunk lines, and fierce rate competition made profitable operation impossible.

As the result of the Chicago fire and trunk line competition the Central endeavored to develop its southern connections. The Mobile & Ohio was not considered desirable and the directors turned their attention to two short roads from New Orleans north, the New Orleans, Jackson & Great Northern from the New Orleans to Canton, Miss., and the Mississippi Central from there to Jackson, Tennessee. There was a gap of a hundred and twenty miles from Jackson to Cairo, which the M.C. did not have funds to complete. In 1872 a contract was entered into between the three companies providing for the construction of the Jackson-Cairo line and the ^{annual Rpt of I.C.R.R.} purchase of a minimum of \$100,000 bonds of the southern railroad companies ~~a year by the I.C.~~¹ After various negotiation in 1872 and 1873 the I.C. ^{in the latter year} purchased \$5,000,000 7% bonds of the two southern roads and sold an equal amount of its 5% gold mortgage bonds at approximately 85.³ Interest on the N.O., St.L. & C., a consolidation of the NOJ&GN and M.C., bonds was in default in 1876 and on March 10th of that year the two roads were placed in the hands of the receiver.⁴ In 1878 a new company, the Chicago, St. Louis & New Orleans was created to take charge of the lines south of Cairo with the Illinois Central in control. From 1878 to 1882 the road was operated independently of the Central under Messrs Osborn and Clark, officers of the ^{Illinois} company and the entire net earnings above a small amount of fixed charges, ~~were~~ ^{were} expended on the property. On January 1st, 1883, the C.St.L.&N. was

1 Annual Report, Illinois Central R.R., 1872.
 3 Ibid., 1876.
 4 Ibid., 1876.

[The page contains extremely faint, illegible text, likely bleed-through from the reverse side. The text is organized into several paragraphs and appears to be a formal document or letter.]

leased for 999 years at an annual rent of the interest on \$18,000,000 bonds of the latter company ¹ *and 4% dividends on \$10,000,000 stock.*

After the foreclosure in 1876 the I.C. was forced to advance large sums to the southern road and for a time it seemed as if the investment would be lost. In fact the English and Dutch stockholders were so frightened that they sent over a special investigating committee in that year. However, through the efforts of Judge Fantress, Vice-President Osborn and General Manager Clark, the men in charge of the southern lines, a reorganization was effected which was very favorable to the I.C. In the C.S.C.L.&N.O. had \$18,000,000 bonds and \$10,000,000 stock, of which the I.C.R.R. held \$5,000,000 bonds and practically all the stock. In the lease arrangements were made whereby the entire capital stock of the C.St.L.&N.O. was surrendered to the I.C.R.R., which in turn issued its 4% leased line certificates. In 1883 ~~leased line~~ ^{these} certificates to the extent of \$4,930,000 were divided among the stockholders as a 17% dividend. \$640,000 was held in the treasury and the remainder belonged to former creditors of the N.O., St.L.&C.²

The Central meanwhile had been expanding in the north. ^{there was made} In 1871/a traffic agreement and quasi-guarantee of the funded debt of the Gilman, Clinton & Springfield from Gilman to Springfield. After a spirited contest with Pennsylvania R.R. Co. interests, control of this company was secured in 1877, and in 1878 it was leased to the I.C.R.R. at a rental of 6% on \$1,600,000 6% currency bonds of the G.C.&S., Chicago and Springfield, the successor of the G.C.&S. These bonds were guaranteed principal and interest by the lessee.³

In 1878 an extension was commenced from K Otto towards Kankakee and Minonk, which was completed in 1884 at a cost of \$1,700,000. The principal and interest of its securities was guaranteed by the lessee and the road was rented at the fixed charges.⁴

1 Annual Report, Illinois Central R.R., 1883.
2 Ibid., 1878 to 1883.
3 Ibid., 1877, 1878, 1871
4 Ibid., 1878 to 1884.

CHAPTER I
THE DISCOVERY OF AMERICA
The first discovery of America was made by Christopher Columbus in 1492. He sailed from Spain in August and reached the island of San Salvador in the Bahamas in October. This was the first of many voyages he made to the New World, which he named after his patron, Prince Ferdinand of Aragon. Columbus's discovery opened the way for European exploration and settlement of the Americas.

CHAPTER II
THE EARLY YEARS OF THE COLONIES
The first European colonies in North America were founded by the Spanish, French, and English. The Spanish colonies were the largest and most numerous, followed by the French and then the English. The colonies were established for a variety of reasons, including the search for wealth, the desire for religious freedom, and the need for new land.

CHAPTER III
THE STRUGGLE FOR INDEPENDENCE
The colonies began to fight for independence from Britain in 1776. The American Revolution was a war fought between the thirteen original colonies and the Kingdom of Great Britain. The colonies won their independence and became the United States of America.

CHAPTER IV
THE GROWTH OF THE NATION
The United States grew rapidly in the years following the Revolution. The population increased, and the economy expanded. The nation was united by a common purpose and a shared sense of identity.

CHAPTER V
THE CIVIL WAR
The Civil War was fought between the Northern states and the Southern states from 1861 to 1865. It was a war fought over the issue of slavery. The Union won the war, and slavery was abolished.

CHAPTER VI
THE RECONSTRUCTION ERA
The Reconstruction Era was the period following the Civil War when the Southern states were brought back into the Union. It was a time of great change and struggle for the newly freed African Americans.

CHAPTER VII
THE GROWTH OF THE INDUSTRIAL REVOLUTION
The Industrial Revolution was a period of rapid technological and economic change that began in the late 18th century and continued into the 19th century. It was a time of great progress and innovation.

CHAPTER VIII
THE PROGRESSIVE ERA
The Progressive Era was a period of social and political reform that began in the late 19th century and continued into the early 20th century. It was a time of great change and progress.

CHAPTER IX
THE GREAT DEPRESSION
The Great Depression was a period of economic hardship that began in 1929 and lasted until the mid-1930s. It was a time of great suffering and struggle.

CHAPTER X
THE SECOND WORLD WAR
The Second World War was a global conflict that lasted from 1939 to 1945. It was a war fought between the Axis powers and the Allied powers. The Allies won the war, and the world was forever changed.

About the same time two short feeders were constructed in the south. The first was the Canton, Aberdeen & Nashville from Kosciusko to Aberdeen, in Mississippi, and the second the Yazoo & Mississippi Valley from Jackson, Mississippi 140 miles northwest. In both cases nominally independent corporations were created and the completed road leased by the I.C.R.R. at a rental of the fixed charges.¹

Another unimportant addition to the system was the South Chicago R.R. from 73rd Street to South Chicago, which was finished in 1887 and rented on the same terms as the other railroads.²

By these arrangements the Illinois Central increased its mileage operated from 1,108.97 in 1871 to 2,149.07 in 1886. Of this mileage 952.99 was in Illinois; 793.92 south of Cairo; and 402.16 in Iowa. The 705.5 miles of the charter lines was still the only track owned, but the entire securities-of-the capital stock and a majority of the funded debt of the CStL&N, SC, K&SW, CA&N, Y&MV was owned, giving absolute control.³

The financial changes during this period were unimportant. In 1873 \$3,500,000 additional stock was issued to shareholders at par, making the total capital stock outstanding \$29,000,000.⁴ The construction bond mortgage of 1871-1875 was cancelled in the latter year.⁵ The 6% sterling 6% redemption loan of 1875 was refunded at the same rate payable in 1895 and the mortgage cancelled.⁶ On August 10th, 1874, a mortgage on the charter lines was executed for \$15,000,000, including the \$2,500,000 loan of 1895. Under this mortgage there was issued: \$2,500,000 6% sterling bonds of 1895; £1,000,000 5% bonds of 1903; \$2,500,000 3 1/2s of 1871; \$1,500,000 4% of 1871; £200,000 5% of 1905. In 1886 £1,000,000 3 1/2s of 1870 were issued with an equal amount of 5% gold C.St.L.&N.O. bonds as collateral. In addition the

1 Annual Report, Illinois Central R.R., 1883-1886

2 Ibid.

3 Ibid., 1886

4 Ibid., 1873, 1874.

5 Ibid., 1874, 1875.

6 Ibid., 1874, 1875.

following obligations of subsidiary companies were as under:

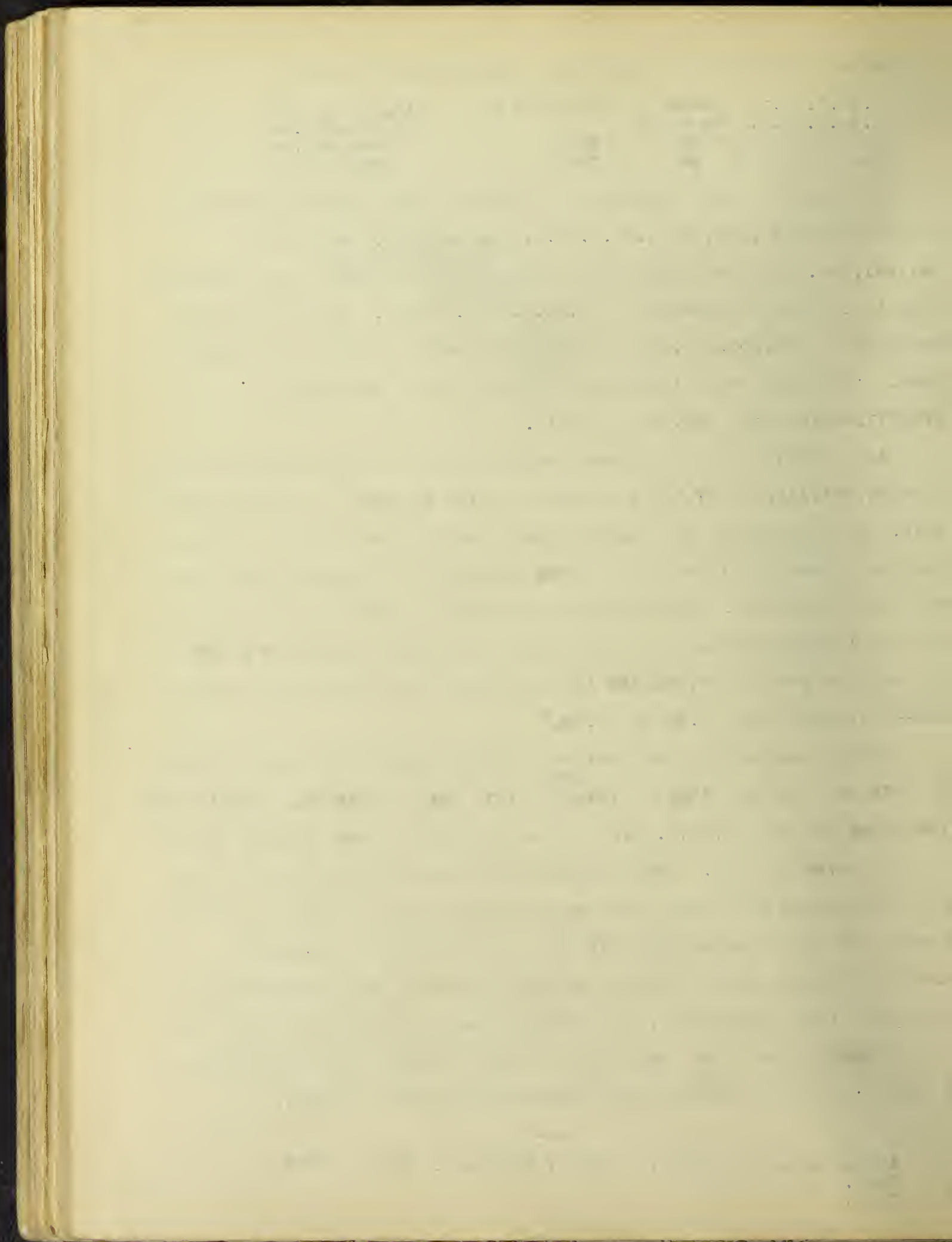
C.St.L.&N.O. 5%-8%	1890-1911	\$18,000,000.00
C.St.L.&N.O. 4% Stock		10,000,000.00
Middle Division 5%	1891	968,000.00
Springfield " 6%	1895	1,600,000.00

The total funded debt, including the leased line stock certificates, but excluding \$5,000,000 C.St.L.&N.O. 5%^s pledged, amounted to \$41,971,000. The net funded debt in hands of the public was considerably less owing to holdings of C.St.L.&N.O. bonds. Interest charges amounted to \$2,001,405.00, including \$50,000 set apart for sinking fund. The total capitalization, debt and stock, amounted to \$70,971,000.00, or \$40,500 per mile.¹

As a result of the increased mileage gross receipts had increased from \$8,401,141, or \$7,590 per mile, to \$12,529,493, or only \$5,700 per mile. The earnings of the charter lines had decreased by over twelve hundred thousand dollars and in 1886 amounted to slightly under five and a half millions. Net receipts from operation of the railroad, including investments and the land office, increased from \$3,056,232 in the earlier year to \$4,988,466 in the latter. The operating ratio had fallen ~~risen~~ slightly from 55.3% to 55.1%.²

During this period the dividend rate had fluctuated considerably. To 1873 the rate was 10%; in 1874¹⁸⁷⁵ and 1875 8%; in 1876 4%; 1878-1881 6% 1882-1886 7% and a C.St.L.&N.O. stock dividend in 1883 of 17%, equivalent to 14.6% in cash. The profits from operating the charter lines were reasonably good, but they resulted from rigid economy in the maintenance of the property which allow it to deteriorate slightly. The traffic on these lines was also greatly increased by the improved southern and Iowa connections. The general position of the company was far stronger than it had been fifteen years earlier and it was now in a place where it could meet its competitors on equal terms.

1 Annual Report, Illinois Central Railroad, 1871 to 1886
 2 Ibid.
 3 Ibid.



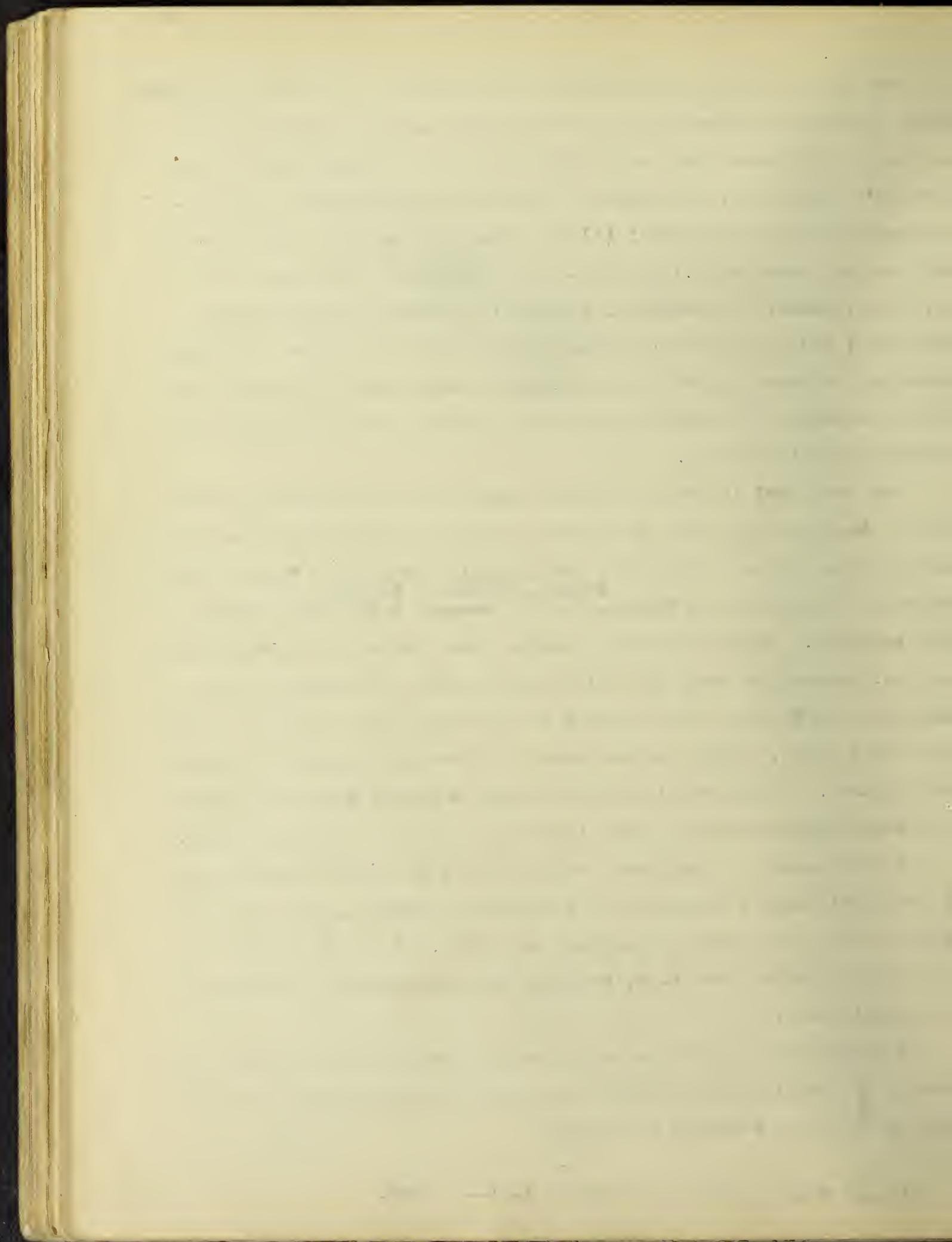
The third period in the history of the company extending from 1887 1908, although not marked by the violent fluctuations of the earlier periods is of greater interest on account of the greater scope of the company's operations. Two distinct features are prominent in its development during these years; (1) the rapid and extensive expansion of the system, especially its efforts to reach large cities such as St. Louis, Omaha, Indianapolis, Louisville, Memphis, Birmingham and Nashville; (2) the internal growth of the railroad as marked by double tracking, enormous purchases of equipment, improvement of roadbed and the development of terminal facilities, together with a steadily increasing traffic density.

The year 1887 is one of the most important in the history of the road. Early in that year it secured control and then leased two short east and west lines in Illinois, the Champaign, Havana & Western from Champaign to Decatur and Havana, and the Rantoul & Eastern Rantoul R.R. from Le Roy to West Lebanon. These roads had formerly been a part of the Wabash system and, tapping as they did a rich agricultural territory, had been important competitors of the Central by diverting grain to the east and west trunk lines. They were purchased at foreclosure sale at reasonable figures, reorganized into the Chicago, Havana & Western and Rantoul Railroads respectively, and leased at a rental of fixed charges.¹

In the south the important event of the year was the acquisition of the Mississippi & Tennessee from Grenada to Memphis. This gave an entrance from the south to that important city. It is interesting to note that Vice-President E. H. Harriman was instrumental in effecting this acquisition.

In the north the year is marked by the surrender of the Iowa lines leases, the acquisition of those roads and the construction of a connecting line from Freeport to Chicago.

1 Annual Report, Illinois Central, 1887.



The lease of the D&SC, IF&SC and CF&M made in 1867 was to terminate in 1887, with option of renewal at the same terms, viz. 36% of the gross receipts to be paid as rental. Taking into consideration additional traffic brought to the charter lines and other factors the lease may be regarded as favorable, on the whole, to the Central, although there was a considerable deficit in the operation of those roads. However, the traffic on the Iowa lines was not as great as it should have been for two reasons: (1) the terms of the lease made it unadvisable for the lessee to invest large sums in permanent improvements and connecting or branch lines thereby retarding the development of the adjacent country and also lessening receipts: (2) there was no connection between the Galena branch and the Chicago terminals owned by the lessee and the Central was at a decided disadvantage compared with competing lines. As a result the Illinois Central lost ground in Iowa, relatively, from 1880 to 1887.

When the lease expired the lessee refused to renew it under its option, but instead made arrangements with owners of a majority of the stock of the I.F.&S.C. for purchase of a controlling interest in that road. The completion of this purchase would have isolated the D.&S.C., and the owners of that railroad, rather than attempt to operate the line independently, agreed to sell a controlling interest in the stock. The IF&SC stock was purchased at \$70 per share and the D&SC at \$81.60, a very reasonable figures. After the purchase of majority holdings in both companies the minority shareholders sold their stock at various prices, usually somewhat lower than the amounts stated above. Thus, by the end of October, the time that the lease terminated, the Central had obtained absolute control of the line from Dubuque to Sioux City. Beginning with 1888 the IF&SC was consolidated with the D&SC under the name of the latter company, the stock being increased from five million to eight million. The stock of the D&SC was unchanged, while holders

of IF&SC securities received five shares of the ~~x~~ D&SC stock for eight of the IF&SC, or a total of \$2,875,000. The remaining \$125,000 of D&SC stock went to the Illinois Central as owner of the Cedar Rapids & Chicago and Cherokee & Dakota Railroads, two feeders. The funded debt of both companies remained the same.¹ The Cedar Falls & Minnesota was not included in the purchase on account of litigation regarding the interpretation of the lease.²

In 1887 and 1888 two new feeders were constructed, the Cedar Rapids & Chicago from Cedar Rapids to Manchester on the old D&SC and the Cherokee & Dakota from Cherokee on the old IF&SC to Sioux Falls, South Dakota. These new railroads were then leased to the D&SC and their funded obligations amounting to \$3,930,000 assumed by that company. The bonds, however, were retained in the treasury of the I.C.R.R. and used as collateral.³

The total mileage operated in Iowa under the name of the D&SC was thus increased to 599.59 miles, all of which was well built and had a good traffic. The lines owned or controlled by the D&SC were leased to the Illinois Central on March 15th, 1888 at a rental of the net earning ^{stock} of the leased lines. Of a total/capitalization of \$8,000,000 of the D&SC the I.C.R.R. held \$7,882,800 and in addition \$5,265,000 bonds, making the former virtually an owned lines.

As a corrolary to the acquisition of the Iowa lines the Central built a railroad, called the Chicago, Madison & Northern, from Free port to Chicago, with two branches from Free port to Dodgeville and Madison Wisconsin. The road was built by the CM&N through advances made by the I.C.R.R. and rented to the latter ~~y~~. A nominal amount of stock was issued to the lessee, together with all the bonds of the subsidiary company amounting to \$4,370,000, where were pledged as collateral for the former's collateral trust bonds. The total cost of this road was about ten million dollars. In addition to providing a connection be-

tween the western lines and Chicago the CM&N gave access to the important city of Madison and afforded a possible extension to Minneapolis, Minnesota. It seems there was considerable talk of building such a line, but later arrangements with the Minneapolis & St. Louis from Albert Lea to Minneapolis accomplished the same purpose without a heavy expenditure of capital.

In the four years following the completion of the CM&N in 1888 there was a lull in the activities of the Central and the operated mileage remained practically stationary. The only construction work of importance was the building of the Cairo bridge from Cairo Junction to E. Cairo. The work was carried on by the C.St.L.&N.O. through advances made by the I.C.R.R. and the bridge was finished in 1889 at a total cost of something over \$2,600,000. \$3,000,000 5% Cairo Bridge Bonds of the C.St.L.&N.O. were issued to the I.C.R.R. as repayment of the advances and the latter then issued an equal amount of 4% Cairo Bridge collateral trust bonds. The bridge was leased to the I.C.R.R. by the C.St.L.&N. O. on June 2nd, 1890 for an annual rental of \$180,000. Since then the lessee has made an arbitrary charge of 2¢ a hundred for freight and 25¢ a passenger for passenger traffic crossing the bridge.

In 1892 the railroad entered upon a short period of expansion which increased the operated and controlled mileage from 2885 miles in 1892 to 5,003 in 1900 and nearly 6000 miles in 1908. The main lines of expansion were west to St. Louis, south to New Orleans and south-east to Louisville. The increase in mileage is coincident with the panic of 1893 and the breakup of the Huntington System and was influenced to a large extent by the strong financial position of the company which permitted it to take advantage of the low price of railroad securities following the depression. On the traffic and operating sides the reason for the expansion was the desire to round out the railroad by reaching the important cities of St. Louis, Memphis and Louisville and

The first part of the paper is devoted to a general
discussion of the problem. It is shown that the
problem is equivalent to the problem of finding
the minimum of a certain function. This function
is defined by the following expression:
$$F(x) = \frac{1}{2} \int_0^1 (x(t) - y(t))^2 dt$$

where $x(t)$ and $y(t)$ are functions of t which
satisfy the boundary conditions $x(0) = x_0$,
 $x(1) = x_1$, $y(0) = y_0$, $y(1) = y_1$. The
functions $x(t)$ and $y(t)$ are assumed to be
continuous and differentiable. The minimum of
the function $F(x)$ is found by the method of
Lagrange multipliers. The resulting equations are
solved by the method of successive approximations.
The final result is that the minimum of the
function $F(x)$ is attained when the functions
 $x(t)$ and $y(t)$ are given by the following
expressions:
$$x(t) = x_0 + (x_1 - x_0)t$$

$$y(t) = y_0 + (y_1 - y_0)t$$

The minimum value of the function $F(x)$ is
then found to be $\frac{1}{2} \int_0^1 (x_1 - x_0)^2 dt = \frac{1}{2} (x_1 - x_0)^2$.

to control the southern traffic of those commercial centers. The danger of prospective competition hastened the company's hand at times.

When the C.St.L.&N.O. was acquired the Mobile & Ohio was the only other railroad competing even indirectly with the Chicago-New Orleans lines of the Central and at that time the M&O had no connection with the north except through ~~the~~ a narrow gauge line from Cairo to St. Louis. In 1887 these two lines were consolidated thus placing the M&O in a more favorable competitive position. About the same time the Huntington System of Railroads embracing the Southern Pacific R.R., Central Pacific and Newport News Company properties of the Chesapeake & Ohio and Chesapeake, Ohio & Southwestern encroached seriously upon Illinois Central territory. In 1881 two short railroads between Memphis & Louisville, Kentucky, were merged into the C.O.&S.W., the lines brought up to standard and a gap of fifty miles finished. At first this new company gave the Central a very valuable interchange of traffic at Memphis and Fulton, but in 188 the Huntington interests commenced the construction of a railroad between its Newport News and Southern Pacific properties... Some unimportant railways in eastern Louisiana and western Mississippi were consolidated into the Louisville, New Orleans & Texas, charters were secured in those states and Tennessee and a line built from New Orleans to Memphis. It was finished at the close of 1884 and ~~afforded~~ although fifty miles longer than the M&T-CStL&NO route between those places its lower grades and easier curves made it a formidable rival of the latter company. In the seven years from 1885 to 1891 the gross receipts of the LNO&T grew from \$1,390,717 to \$3,716,429 and in the latter year were only slightly less than those of the Illinois Central south of Cairo. The fierce competition between the two roads was unprofitable to both ^{on} and the breakup of the Huntington System in 1891 the LNO&T was left isolated. Its large funded debt made it especially vulnerable and the Illinois Central took advantage of the op-

portunity to purchase the property from the Huntington interests. \$5,000,000 in cash and \$20,000,000 4% I.C.R.R. collateral trust bonds were given in exchange for this railroad, which at the time was 807.7 miles in length and had net earnings averaging between a million and a million and a half a year. The investment in itself has never been very unprofitable, while the elimination of competition has very materially increased both the receipts and the profits of the original southern lines. On account of federal and state laws the LNO&T has always been operated independently, although for all practical purposes the I.C.R.R. and this company are one and the same. The former owns all but a few hundred thousand dollars of the funded debt and all but \$300,000 of the capital stock of \$6,000,000. The funded debt amounting to \$35,524,000 1st and 2nd mortgage and Land Grant Income bonds are held in the treasury as collateral for \$25,000,000 4% I.C.R.R. gold bonds of 1953, while the stock is owned by the Mississippi Valley Corporation, a subsidiary holding company. In October, 1892, the LNO&T was merged into the Yazoo & Mississippi Valley R.R., the subsidiary line of the Central from Jackson, Mississippi, northward, but it was not until 1898 that the lease of the Yazoo branch was surrendered.

Following the panic of 1893 the Central took advantage of the low price of CO&SW securities to purchase a controlling interest in that road and connected companies. This railroad extended from Memphis northeast via Fulton and Paducah, Ky., to Louisville, with branches to Evansville & Owensboro, owned by subsidiary companies. The 40 miles from Cecilia to Louisville was rented from the Louisville & Nashville. The Central hesitated to encroach upon the territory of the latter system and therefore made arrangements whereby it surrendered the CO&SW to the L&N and received in return perpetual running rights from Fulton to Memphis. However, the courts decided that the L&N had no authority under its charter to make such an acquisition and in July, 1896, the CO&W

at
 was sold under foreclosure sale in the interests of the Illinois Central. The minority interests were of considerable importance, but after a rather protracted and expensive litigation the properties were reorganized and purchased by the C.St.L.&N.O. A mortgage to the extent of \$25,000,000 in 4% bonds was placed on the property and of this \$21,788,000 was eventually disposed of, the remainder being held for improvements and acquisitions. The roads were consolidated with the system as the Louisville Division on July 1st and August 1st, 1897, with a total mileage of 579 miles.

v The Louisville Division was an extremely important addition to the System. The traffic on the lines themselves was heavy, reaching \$4,393,346 in 1900, and in addition a large and valuable tonnage was contributed to other parts of the railroad. Moreover, the portion of the road from Memphis to Fulton was used as a part of the through Chicago-New Orleans route.

The third important acquisition of this period was the St. Louis, Alton & Terre Haute R.R. and subsidiary lines. Formerly this company had a line from St. Louis to Terre Haute and leased lines from the first city southeast to Du Quoin, Eldorado & Paducah, but in 1892 the former division was sold to the C.C.C.&St.L. for \$10,000,000. The remainder, commonly termed the Cairo Short Line, had always had close traffic connections with the Central and with the southern additions to the system it seemed advisable to bring this road into closer operating relations. After negotiations with the owners of the St.L.A.&TH the original line from E. St. Louis to Belleville and the leased lines were leased to the Illinois Central on October 1st, 1895, the lease being for 99 years and the rental interest on the securities of the St.L.A.&TH and the assumption of the leases of the former subsidiary roads. During the next two years the stocks and bonds of the various companies, excepting small minority holdings, were exchanged for Illinois Central

3% and 3 1/2% St. Louis Division bonds on specified terms. To effect the purchase \$5,000,000 3% and \$10,000,000 3 1/2% bonds were issued, with a total interest charge of \$500,000.00

The Cairo Short Line had been a very profitable system and while the Central paid a good price for the property the net earnings more than justified the purchase. In 1900 gross receipts amounted to \$1,878,484, while the net earnings were \$672,114, or \$164,589 above interest requirements. Moreover, the acquisition of this road retained permanently a very valuable traffic connection with St. Louis, which is becoming of increasing importance, especially in that it proves a good outlet for southern Illinois coal. The increase in mileage as result of the lease was 239 miles.

In the same year in which the Louisville Division was formally leased, 1897, the Central purchased a small coal road in southern Illinois, the Chicago & Texas ^{75 miles in length}. It was important as a feeder and in addition afforded a connection with the lines of the St. Louis Southwest^{ern} at Grays Point.

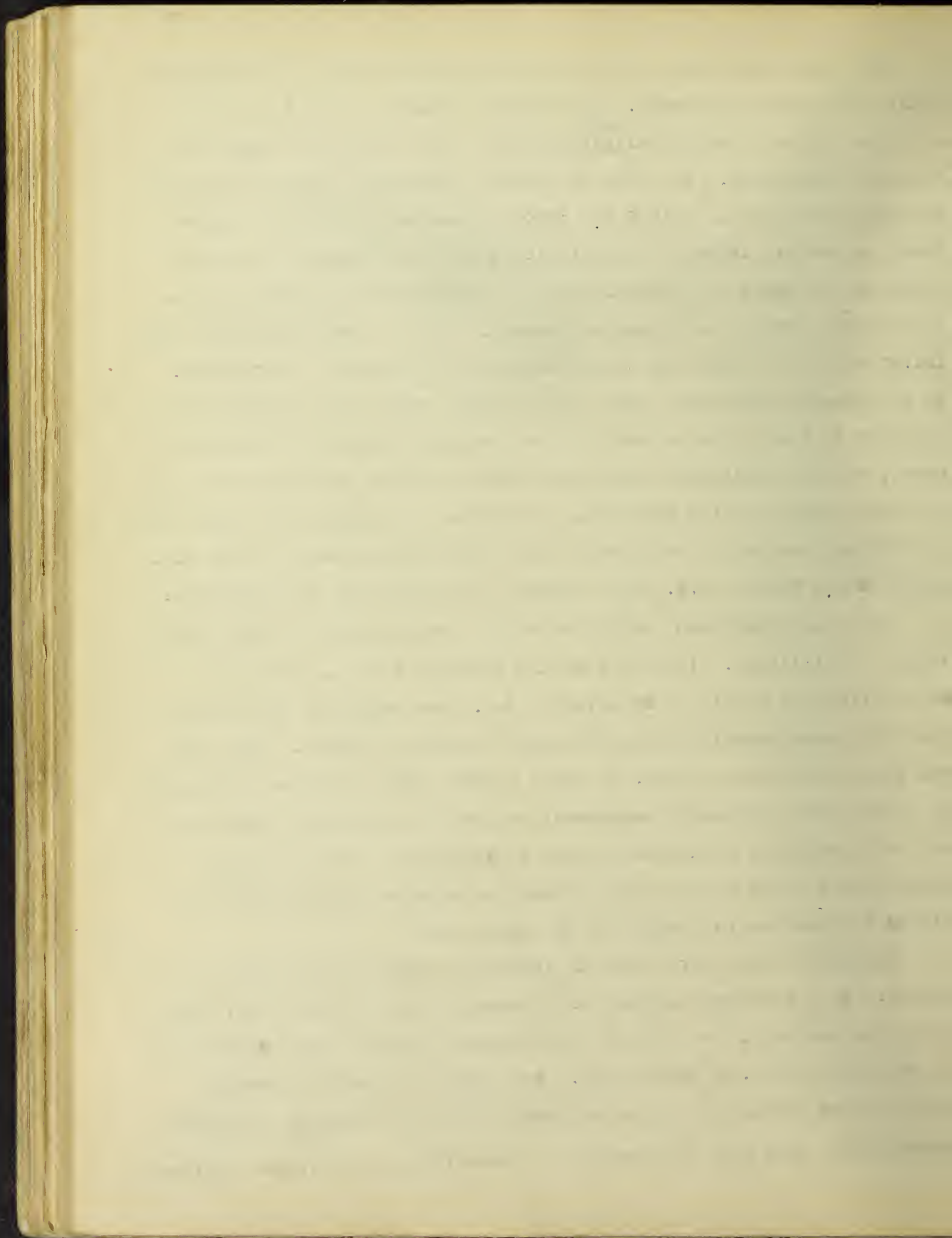
In 1900 through connections were secured between St. Louis and Chicago by the purchase of that portion of the St. Louis, Peoria & Northern from E. St. Louis to X Springfield, the remainder going to the Alton. This piece of track, 97.59 miles in length, was bought at foreclosure and reorganized into the Litchfield Division, the purchase price being \$3,000,000 3% Litchfield Division bonds. Previous to this time the I.C. had trackage rights over the StLA&TH, later the C.C.C.&St.L. from Pana to E. St. Louis, but this addition gave the system an independent entrance to St. Louis from the north, shorted the Chicago-St. Louis mileage by 6.38 miles and connected the capital of Illinois with St. Louis. By the new arrangement the old Chicago & Springfield railroad was converted from a rather unprofitable branch and feeder line into an increasingly important main line.

THE HISTORY OF THE
CITY OF BOSTON
FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
IN TWO VOLUMES
BY NATHANIEL BENTLEY
OF THE BARRISTER AT LAW
IN GREAT BRITAIN
AND OF THE JUDGE OF THE
COMMON PLEAS IN MASSACHUSETTS
VOLUME THE SECOND
PUBLISHED BY J. B. BENTLEY
AT THE PRESS OF J. B. BENTLEY
NO. 1. NASSAU ST. N.Y.
1856

The fourth important city of the Mississippi Valley to be brought within the system was Omaha. The western termini of the Iowa lines and were the cities of Sioux Falls/Sioux City, but neither had important Pacific connections. In order to secure a portion of transcontinental business the Central in 1899 and 1900 constructed a railroad from Ft. Dodge on the old IF&SC to Council Bluffs and then acquired valuable terminals at Omaha and Council Bluffs, including controlling interest in the Omaha Bridge and Terminal company. The new Omaha Division was 131.02 miles in length and cost, exclusive of terminals, \$4,100,000. It is commonly understood that this line has never been a paying proposition in itself due to the intense competition between Chicago and Omaha, but the additional long haul tonnage secured by this trans-continental connection has materially increased the receipts of other parts of the railroad and it is probable that the recent control of the I.C. by the Union Pacific R.R. will increase the traffic of this division.

The fourth important extension of the system, also in 1900, was to Peoria, in Illinois. In that year the bankrupt Peoria, Decatur & Evansville from Peoria to Evansville, Ind., was bought at foreclosure sale for approximately five and a quarter million dollars. The road was worth considerably more, it had a traffic which would be profitable in itself under efficient management and gave a connection with Peoria, the most important industrial center in Illinois south of Chicago. Tapping as it does a rich agricultural and manufacturing district it diverges considerable traffic to the main lines.

During the next five years no important additions were made to the system. As a temporary measure the company leased in that year, under option to purchase, the line of the Tennessee Central from Hopkinsville to Nashville, Tenn, 85 miles long. An attempt was made to develop traffic from Chicago and other northern points to Nashville and large expenditures were made on terminals at Nashville to facilitate business



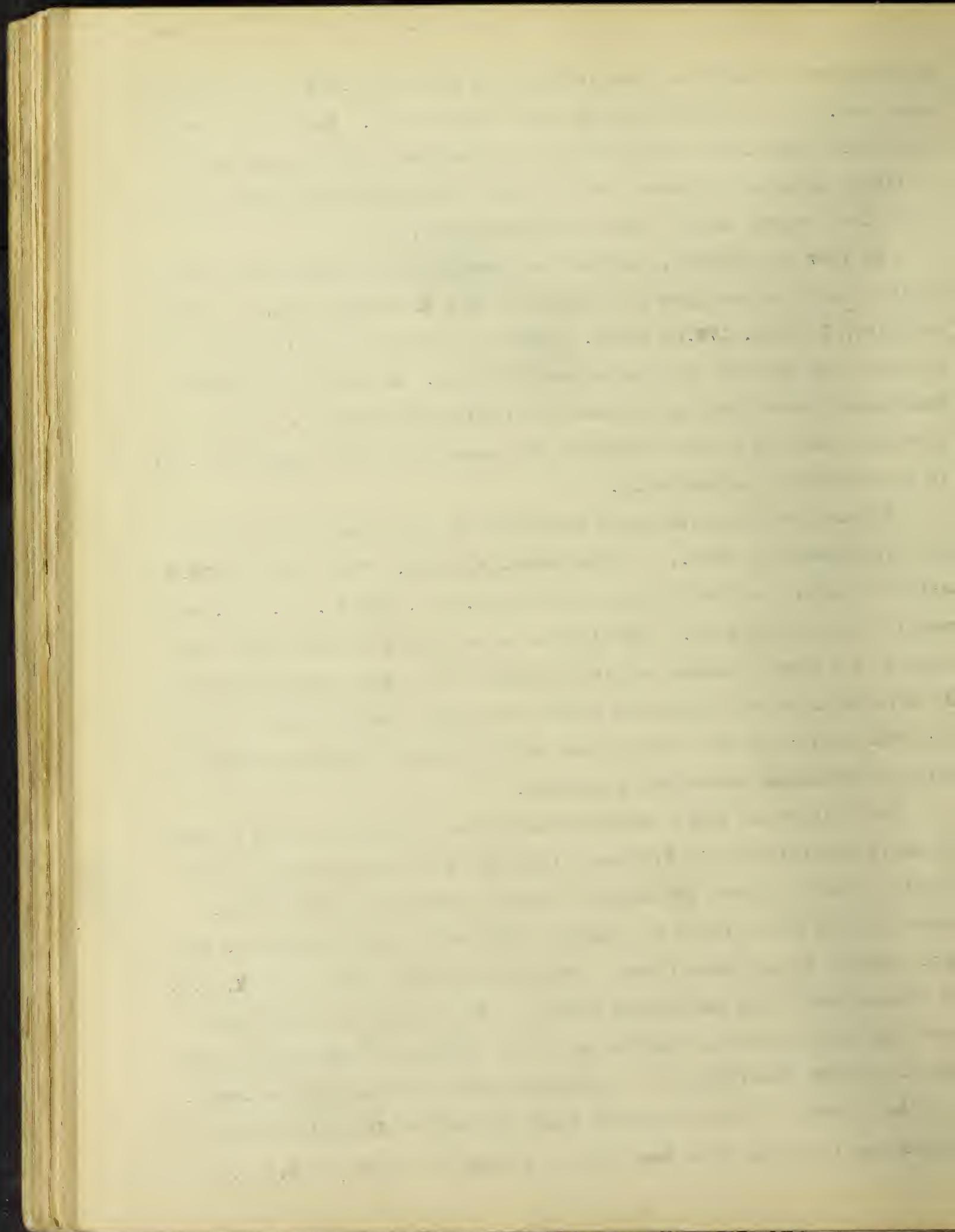
The expectations were not realized and on July 1st, 1908, the lease was abandoned, the net result having been a heavy loss. However, it seems improbable that this connection will be abandoned permanently and it is likely that the Tennessee Central will be purchased at foreclosure, since the company cannot operate independently.

In 1907 the Central, through the subsidiary Indianapolis Southern, finished the construction of a railroad from Effingham, Ill., to Indianapolis, Indiana, 122.07 miles. This is a low-grade, well built line intended for minerals and other heavy freight. At present its chief importance comes from the valuable coal and stone traffic, but it is probable that the general business will soon be of fair importance. It is now operated independently.

Perhaps the most important extension of recent years is the new line from Jackson, Tenn., to Birmingham, Alabama. This line of 216.6 miles is partly trackage rights over the M. & O. and KC., M. & B. and partly new construction. The line is built with low grades and easy curves at a heavy expense and is intended for a large mineral traffic. It affords a direct connection between the great agricultural and industrial region of the north served by the Central and the rapidly growing Birmingham industrial territory.

In addition to these important additions there have been a number of small acquisitions in Illinois, Indiana, Iowa and the South, especially in the southern Indiana and southern Illinois coal regions. These feeders add a large and rapidly increasing agricultural and mineral traffic to the main lines. The construction work of the Y. & M. V. in Mississippi needs particular mention. In the last ten years this road has built some four hundred miles of feeders in branches in that state, thereby developing in a striking manner the rich bottom lands.

As a result of these various acquisitions the Illinois Central system has increased from 2885 miles in 1886 to a total of 6,150.52



owned and 6,312.64 miles operated, including trackage rights, in 1908.

Of even greater significance than the mere increase in length is the steady and often rapid improvement of the system. In 1886 the Central was primarily a trunk line between Chicago and New Orleans with branches in Illinois and Iowa. At present it is a well rounded system reaching all the important commercial centers of the middle Mississippi Valley from Minneapolis to New Orleans, with numerous feeders and branches and valuable terminal facilities. Its traffic strength has been increased greatly.

As an accompaniment there has come a marked improvement in physical standards. Cuts and fills have been widened; bridges, trestles and culverts rebuilt for heavy traffic; heavy rails relaid and track brought to a high state of efficiency; ample yard and terminal facilities provided on all parts of the road; heavy grades and sharp curves eliminated or reduced wherever possible; buildings of a permanent character erected; in a word the engineering features placed on a high standard. In 1908 on the Illinois Central operated lines there was 785.06 miles of second or additional main track and 1799.95 miles of sidings, equal to nearly one half the line mileage. To handle the increase in traffic large expenditures have been made for equipment of all kinds. It is a striking fact that rapid as has been the expansion of the system the expenditures for betterments, improvements, new equipment and terminals has more than equaled the entire cost of 2300 miles of new line. Train service, both passenger and freight, has been perfected in an equally progressive manner.

Perhaps the most impressive factor is the development of gross receipts and net earnings. The former has increased from \$12,529,493 or 5,820 per mile, to \$12,970-- \$57,187,656 in 1908, or \$12,570 per mile. The gross receipts for the entire system were over sixty five millions in 1908. Net earnings have increased somewhat slower, viz. from \$4,738,952 to \$13,417,129. The figures for the year 1908

be somewhat larger than for 1908. As a result of increased net earnings and lower interest rates the dividends have been well maintained. Six per cent was paid in 1888 to 1890; 5% 1891 to 1899; 5 1/2% in 1900; 6% 1901 to 1905 and 7% 1906 to 1908.

The capital changes in the period from 1886 to 1908 have been very important. The stock has increased from \$29,000,000 to \$95,040,000, there being issued to the stockholders \$11,000,000 in 1887; \$5,000,000 in 1891; \$5,000,000 in 1893; \$2,500,000 in 1896; \$7,500,000 in 1900; \$6,000,000 in 1901; \$13,200,000 in 1902; \$15,840,000 in 1903. A further issue of \$14,256,000 was authorized in 1908, but not disposed of until after the close of the fiscal year. These various increases were sold to the shareholders at par in proportion to their holdings, with the exception of \$7,500,000 in 1900 which was sold to Kuhn, Loeb & Co. of New York on failure of stockholders to subscribe.

The funded debt has increased even more rapidly than the stock account, viz. from \$36,971,000 in 1886 to ^{175,053,275} ~~\$281,093,275~~ in 1908. However, the large earnings of the company, its strong financial position and the large equity value of the stock have permitted the company to carry with safety this heavy preponderance of indebtedness. In 1907, the most prosperous year in the history of the company, net income amounted to \$19,363,683.50, or \$11,687,091.11 in excess of interest requirements while the surplus in 1908, a panic year, was \$7,996,399.26. The entire debt in the hands of the public, with slight exception, is on a four per cent basis and much of it has been issued at rates as low as 3 1/2%.

The more important additions to the debt may be reviewed briefly: In 1888 \$15,000,000 4% collateral trust bonds due in 1952 were issued, covering the CA&N, Y&MV, CH&W, R, C&D, CR&C, CM&N; In 1889 \$3,500,000 Memphis Divisions 3 1/2s of 1951 were sold; in 1892 \$3,000,000 4% Cairo Bridge Collateral bonds were issued, secured by an equal amount of

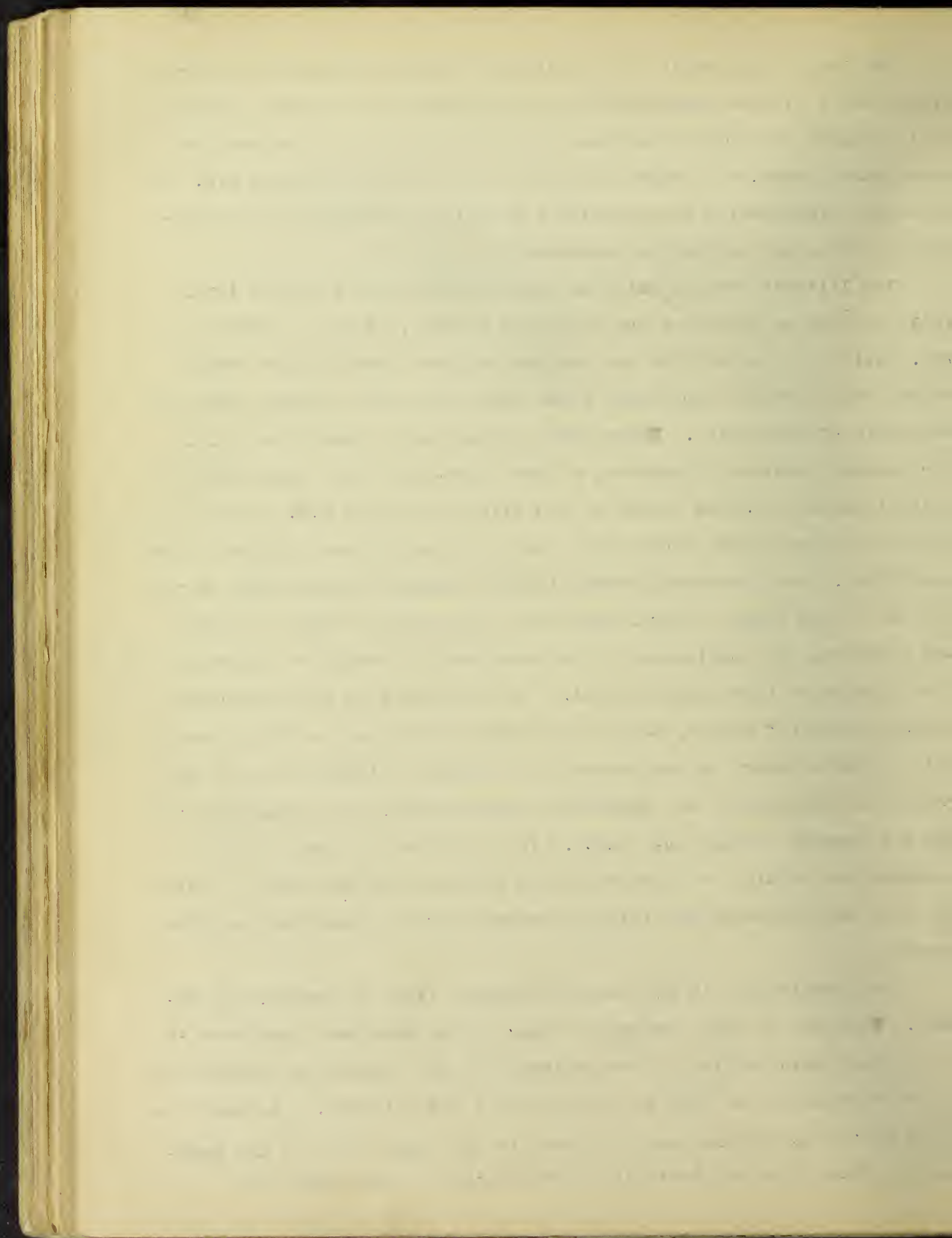
CS&L&NO 5% C.B. bonds ~~xx~~; to effect the purchase of the LNO&T \$25,00000 4% collateral trust bonds of 1953, based on \$35,936,000 LNO&T securities, were issued; in 1895 a mortgage to the extent of \$10,000,0000 was placed on the Iowa lines and Western Lines 4s ~~xx~~ of 1951 have been sold to the extent of \$5,425,000; in 1897 a mortgage was placed on the St. Louis Division for 10,000,000 3 1/2s of 1951 and \$5,000,000 3s of 1951, all of which have been disposed of or are held to retire prior liens; In the same year a mortgage was placed on the Louisville Division for \$25,000,000 4s of 1953 and \$23,888,000 are outstanding; in 1900 mortgage mortgages were placed on the Omaha Division for \$5,000,000 and on the Litchfield Division for \$4,000,000, of which all of the former and \$3,235,000 of the latter are issued; In 1904 a mortgage was executed on the Purchased Lines for \$20,000,000 3 1/2s of 1952, of this amount \$14,662,000 is outstanding and the remainder held for prior liens or to cover improvements; in 1908 \$30,000,000 1st lien equipment 4s of 1923 were issued, but none have yet been sold. In addition to the securities of the I.C.R.R. Co. the subsidiary roads have issued a considerable amount of funded debt, but practically all is held in the treasury of the holding company or pledged under collateral trust agreements. Most of the issues have been sold at par and, with the exception of the Omaha, St. Louis and Litchfield Divisions mortgages any discount has been made good from income.

In 1904 to simplify the organization of the company the Illinois Central R.R. Co. purchased the following subsidiary companies and subjected their property to the Purchased Line Mortgage of 1952: CM&N, CH&W, C&S, R, C&T, MC, StL&OR, M&O, G&SR, C&H, K&SW, Litchfield, St. Louis and Peoria Divisions, with a total mileage of 1,390.71.

The legal organization of the Illinois Central System is far from simple and a clearer understanding of the charter tax and the tax suit will be gained by a brief description of the relations of the various subsidiary companies to each other and to the Illinois Central R.R. Co. Since the organization was materially modified in 1904-05 it is necessary to treat the two periods separately.

The Illinois Central Railroad Company, chartered February 10th, 1851, is both an operating and a holding company. Prior to 1904 the 705.5 miles of charter line was the only mileage owned in fee simple and at that time the subsidiary roads were controlled through lease and ownership of securities. Where new railroads were constructed, e.g. the Chicago, Madison & Northern, a dummy corporation was organized, a nominal amount of stock issued to the Illinois Central R.R. Co. and officers of the latter corporation elected directors and officers of the subsidiary. The construction was financed through advances made by the Central to the dummy concern, which gave its notes or bonds to cover the advances. On completion of the undertaking it would be leased at a contingent or fixed money rental. No securities of the subsidiary, except directors' shares, are in the hands of the public. The stock is held in the treasury of the Central at a nominal valuation and the directors or officers of the operating company control the management of the new company through this stock. In the course of construction a mortgage has usually been placed on the property and the bonds or notes are used as collateral for Illinois Central bonds or else held as free assets.

The organization in the case of acquired lines is practically the same. With two or three exceptions these roads have been purchased at foreclosure sale and in the reorganization a new company is established in the same manner as used in the case of a new railroad. As shown later a different rule has been followed in the acquisition of the Dubuque and Sioux City and Louisville, New Orleans & Texas railroads.



For operating purposes the system is divided into four divisions:

(1) Western Lines operated by the Dubuque & Sioux City; (2) Southern Lines owned by the Chicago, St. Louis & New Orleans (the Canton, Aberdeen & Nashville is an exception); (3) Northern Lines, other than Iowa Lines; (4) Yazoo & Mississippi Valley R.R., owned by the I.C.R.R., but operated independently.

The Dubuque & Sioux City Railroad Company owns the entire Illinois Central mileage west of Dubuque. The capital stock amounts to \$15,000,000, of which \$11,759,500 is issued. Of this the Illinois Central R.R. Co. and controlled companies owns \$11,710,800, leaving only \$48,700 in the hands of the public. The funded debt is of two kinds. First, there is \$7,515,798 mortgage bonds of the Dubuque & Sioux City R.R. Co., representing largely securities issued prior to 1890. In addition the Illinois Central R.R. Co. as lessor of the D&SC properties has placed a ~~Western-Line-~~ mortgage on the road for \$10,000,000 4% Western Line bonds, of which \$5,425,000 is issued. Second, it has placed a mortgage for \$5,000,000 3s of 1951 on the Omaha Division, all of which is outstanding. None of the last two issues are held in the treasury. Of the mortgage bonds \$1,246,298 is held in the treasury unpledged and \$3,930,000 pledged. Only \$2,339,500 D&SC mortgage bonds are in the hands of the public.

The first lease of the D&SC was dated September 13th, 1867, and has already been referred to. After the reorganization of the D&SC and IF&SC a second lease was made on March 15th, 1888, during the chartered existence of the D&SC. A third lease was executed on February 28th, 1891, for 16 years, and a fourth on January 21st, 1895. The last and present agreement was executed on July 1st, 1904. In substance these last four leases provide that the Illinois Central R.R. Co. shall operate the lines of the D&SC, receive all receipts, pay expenses of operation and taxes, and surrender to the lessor the net earnings. Vir-

tually this is a rental of the net earnings, or contingent money rental. Provisions are also made for distributing the gross receipts between the two companies. Nominally the two companies, the I.C.R.R. and D.&S.C.R.R., are distinct and separate corporations, but since the former owns 99.62% of the stock of the latter the two are practically one concern.

The lines south of Cairo are controlled in a somewhat slightly different manner. In 1877 the Chicago, St. Louis & New Orleans was chartered as reorganization of Mississippi Central and New Orleans, Jackson & Great Northern. In 188 it purchased the Mississippi & Tennessee at foreclosure and in 1897 the properties of the Chesapeake, Ohio & Southwest, likewise at foreclosure sale. It now owns in fee simple 1,286.17 miles of line.

\$10,000,000 of stock is outstanding and of this amount \$9,999,300 is held by the Illinois Central R.R. Co., only \$700 being in the hands of the public. However, for this stock the Central has issued Leased Line Stock certificates, practically 4% debenture notes, which are now held by investors. This arrangement is really a trust agreement whereby the Illinois Central R.R. Co. holds the stock in trust for outside parties and by doing so obtains control of the property.

Mortgage bonds to the extent of \$34,500,000 have been issued and are outstanding. \$10,000,000 of this is really nominal, consisting of old bonds, etc., not yet cancelled held in the treasury of the Central until maturity. Of the remaining \$24,500,000 \$5,266,000 3 1/2s of 1950 and \$3,000,000 5% Cairo Bridge bonds are held as collateral for an equal amount of Illinois Central sterling 3 1/2s of 1950 and C.B. 4s of 1950. There is outstanding in the hands of the public \$16,234,000 C.St.L. & N. O. bonds. In addition the Illinois Central ^{in 1897} placed a mortgage of \$25,000,000 on the Louisville Division. \$22,729,000 has been issued under the mortgage, none of which is held within the system.

The C.St.L.& N.O., or southern lines, is leased at a fixed money rental. The lease now in effect was signed June 13th, 1882, and provided that the Illinois Central R.R. Co. should ~~own and~~ operate the C.St.L.& N.O. at a rental of 4% per annum on the capital stock and interest on the \$18,000,000 funded debt of the company. At later dates the C.St.L.&N.O. leased the Cairo Bridge, the Memphis Division, formerly Mississippi & Tennessee, and Louisville Division, formerly Cheapeake, Ohio & Southwestern, at a rental of the fixed ^{interest}/charges. The Cecilia branch is rented for \$40,000 per annum.

The position of the Cairo Bridge is somewhat different from that of the other parts of the CStL&NO. This bridge was built in 1887-89 by the C.St.L.&N.O. through advances made by the Illinois Central R.R. Co. On account of the course of the river at Cairo that portion of the bridge located east of the northwestern shore of the Ohio river is within the boundary lines of the state of Kentucky, the remainder, termed the Illinois approach, is within the state of Illinois. However the bridge is interstate, not state. On June 2nd, 1890, the C.St.L.&NO as owner of the Cairo Bridge leased it to the Illinois Central R.R. Co. for 992 at a fixed rental of \$180,000, being 5% on \$3,000,000 Cairo Bridge bonds and \$30,000 for sinking fund, etc. Since that date the lessee has made an arbitrary charge of 25¢ for every passenger and 2¢ per hundred for freight crossing the bridge, which has been credited in its accounts as Interstate Transfer.

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The third group of lines controlled by the Central are found in Illinois, Indiana and Wisconsin. Prior to June 30th, 1904, there were 23 distinct corporations operated by the Illinois Central R.R. Co. viz. C.M.&N., R., C.& S., K. & S.W., C.H.&W., C. & T., M.C., St.L. A.& T.H., B. & I.S., St.L. S., B.&C., B. & E., C.St.&P., , St.L. & O.R., M. & O., G. & S.R., C. & H., S.C., B.I., R. & H., P.D.&M., M. & E., St.L.P.&N. These companies were leased at a rental of the fixed charges on the funded debt and in the case of the StLA&TH and B.&S.I.

dividends on the capital stock, or an equivalent. The C&S, R., CH&W, P,D&M and M&E were purchased at foreclosure sale; the SH&W, CM&N, K&WS, StL&OR, MO, G&SR, C&H, SC, BI, R&H were constructed; the remainder were obtained through purchase of majority of stocks and bonds. There were minority holdings of very slight importance in the case of the I&I and C&T; in all the other companies, excepting the St. Louis Division, the Illinois Central R.R. Co. owned all the stock. \$2,500,000 bonds of the CH&W, \$4,370,000 of the CM&N and \$1,000,000 of the R. were pledged as part collateral for \$15,000,000 4s of 1952. The C&S was subject to a mortgage lien of \$2,000,000 and the K&SW to one of \$1,000,000. The Illinois Central had placed a mortgage for \$4,000,000 on the Litchfield Division of which \$3,235,000 was outstanding. The debt of the other companies, excepting the St. Louis Division, where any existed, was owned by the Illinois Central R.R. Co. and held in the treasury as free assets or at nominal figures. On the St. Louis Division the I.C.R.R. Co. had placed a mortgage for \$15,000,000 of which \$13,375,275 is outstanding and the remainder held to retire prior liens. All of the stock of the StLA&TH and the B&SI, aside from twenty or thirty shares, was owned by the Central and also practically all the stock of the remaining subsidiary companies formerly in the Cairo Short Line. Thus, minority holdings in the various properties mentioned above constituted only a fraction of the total capitalization of those companies in 1904.

1904, 1905

On November-14th, 1903, the Illinois Central R.R. Co. purchased at trustees' sales the franchises and properties of the various subsidiary companies mentioned above with the exception of the SC & BI, 15, 1,390,71 miles being included in the purchase. A mortgage was placed on these roads for \$20,000,000 3 1/2% Purchased Line Bonds of 1952, of this amount \$14,662,000 has been issued and the remainder is held for betterments and to retire prior liens. This operation, of course, has simplified the organization of the Northern Lines very materially. The total mileage now owned in fee simple, including the charter lines,

2,096.21 miles. Authority for the purchase of these subsidiary lines is found in the general railway laws of Illinois, Indiana and Wisconsin and not in the charter of the Illinois Central R.R. Co. The consolidation has eliminated the necessity of separate accounts for the charter and purchased lines except as required by the charter tax and the operating and accounting requirements of the system.

Outside of the direction operations of the three companies S&SC, CStL&NO and ICRR are the following subsidiary corporations, SC, BI, CA&N, CA&N in Alabama. All securities of the first two are owned by the Illinois Central R.R. Co. The same is true of the last company. The CA&N has \$2,000,000 bonds and \$1,601,900 stock. Of this \$1,950,000 bonds are held within the system and \$1,601,700 stock. The line is leased to the Illinois Central R.R. for interest on the funded debt.

No reference is made to lines under construction. In 1908 nine companies were carrying on construction work, but since their accounts have not yet been settled it is unnecessary to include them in the discussion.

The fourth group mentioned above relates to railroads controlled, but not operated, viz. the Indianapolis Southern and the Yazoo & Mississippi Valley R.R. Cos. The IS from Indianapolis to Effingham has \$2,000,000 stock and \$7,065,550 bonds. \$1,375,400 of the former is owned by the System and all the funded debt. Since the net earnings are not sufficient to meet the fixed charges this ownership of stock and bonds gives absolute control.

The Yazoo & Mississippi Valley is also controlled and owned. The stock outstanding amounts to \$6,168,400, of which the Mississippi Valley Company, a holding company, owns \$5,834,000. The debt amounts to \$52,334,685 and of this \$49,197,555 is held by the Illinois Central R.R. Co. and \$3,137,130 by the public. \$35,840,000 LNO&T bonds are pledged as collateral for \$25,000,000 4s of 1953 and \$10,558,555 is free asset. In recent years the Y&MV has barely met the interest re-

quirements of the absolutely fixed mortgage debt and there is no prospect of dividends on the stock, thus making the latter practically worthless. Although not directly operated by the Illinois Central the Y&MV is rightly considered an integral part of the System.

In addition to the railroad mentioned above there are a number of miscellaneous railroad properties controlled or operated on various terms. The Central has minority holdings of both stocks and bonds in terminal companies at St. Louis, Chicago, Peora, Nashville, Memphis, Birmingham, E. St. Louis and other places. These holdings may be neglected in this paper.

From December 1st, 1905 to July 1st, 1908 that portion of the Tennessee Central from Hopkinsville to Nashville was leased, with option to purchase, but was surrendered on the latter date. Considerable sums were advanced to this road, but the temporary character of the lease makes further treatment unnecessary.

Of more importance is the control of the Dunleith & Dubuque Bridge through the Mississippi Valley Corporation. This bridge was built by the D&D company in 1868 and has been controlled by the Illinois Central ever since. At present the company has \$1,000,000 of stock outstanding all of which is owned by the M.V. Corporation. This stock has been owned by the Central for about thirty five years. In 1867 the bridge was leased for \$150,000 per annum. From 1877 to 1899 an arbitrary of 1905 25¢ per passenger and 2¢ per hundred for freight was charged; in 1899 1905 this deduction was made only to a maximum of \$150,000.

All of the capital stock and funded debt of the Omaha Bridge and Terminal Co., amounting to \$4,000,000 and \$1,750,000 respectively, are held by the Mississippi Valley Corporation. This company, however, is not connected with the charter tax nor with the tax suit.

The St. Louis, Belleville & Southern Railway, parallel to the Belleville-E. St. Louis line of the St. Louis Division has issued \$500,000 each of stock and bonds, all of which is held by the Missis-

Mississippi Valley Corporation. This piece of track, 13 miles in length, is used as part of a double track between Belleville and E. St. Louis, being leased at a contingent rental. The mileage is not included in operated mileage.

Nearly two hundred miles of track is operated under trackage rights, but in no instance does the Illinois Central R.R. Co. own either a controlling or minority interest in the lesser company.

The accompanying chart and table summarize the inter-system relation of the subsidiary and charter companies. The explanation given above and the references on the chart and table should be sufficient to explain the two.

In conclusion it may be stated that for practical purposes the Illinois Central System may be regarded as a unit. Probably \$100,000 would be the outside valuation of stocks of subsidiary corporations held outside the system and under the existing arrangements that small holding carries no influence. So far as the operation of the company is concerned the shareholders of the Illinois Central R.R. Co. and the directors of that company have absolute control of both owned and subsidiary lines.

CHAPTER II.

HISTORY OF THE CHARTER TAX

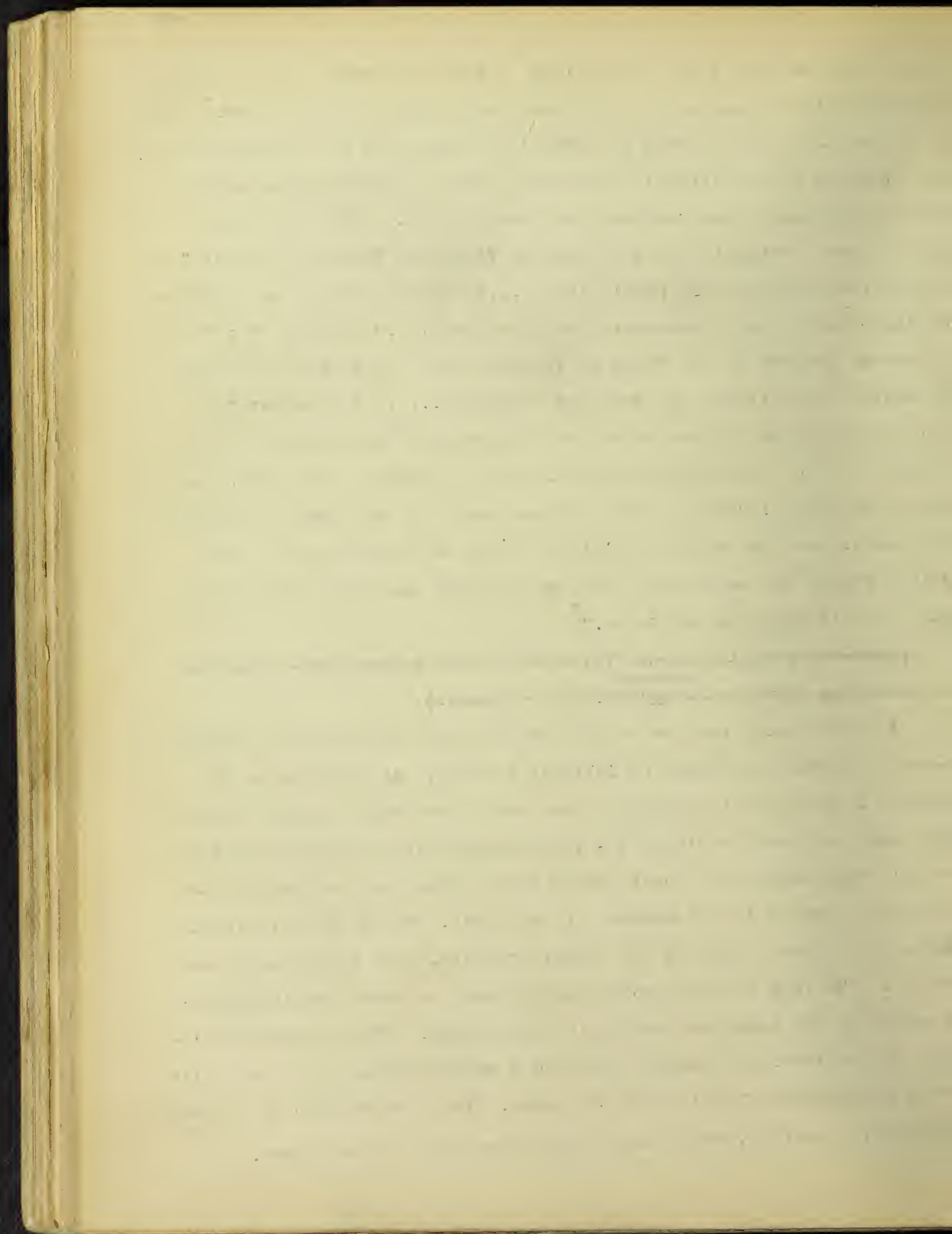
In its inception and construction the Illinois Central Railroad was preeminently a state enterprise. Not only had the state itself attempted to build the road under the Internal Improvement measure, but it had also exercised a very close supervision over the three private companies chartered prior to 1851. If permission was given to private capitalists to complete the undertaking ~~it was~~ because the government did not have the credit to carry it on, and provision was made in the charters of 1836, 1843 and 1849 for possible purchase. Moreover, the attitude of the people towards the Central was different from their attitude towards other roads. Not even the Illinois & Michigan Canal ^{did} aroused so much interest and enthusiasm as the railroad and this interest was particularly noticeable at the time of the land grant.

Of far greater importance than this somewhat sentimental feeling in regard to the Central was the federal Land Grant. The early attempts of Breese and Douglas to secure either a land grant or preemption from the general government for this project were made because it was considered a state enterprise and when the bill was passed by Congress in 1850 the members recognized the essentially national features of a great highway from the great Lakes and Upper Mississippi to the Gulf of Mexico. There was considerable opposition to its passage, but when the grant was finally made it was the distinct understanding in both houses that the state of Illinois should be the owner of the railroad. Senator Douglas in speaking of the measure said: "the road belongs entirely to the state and not to any company whatever. I made a speech last year against the charter of that company (i.e. the Great Western)

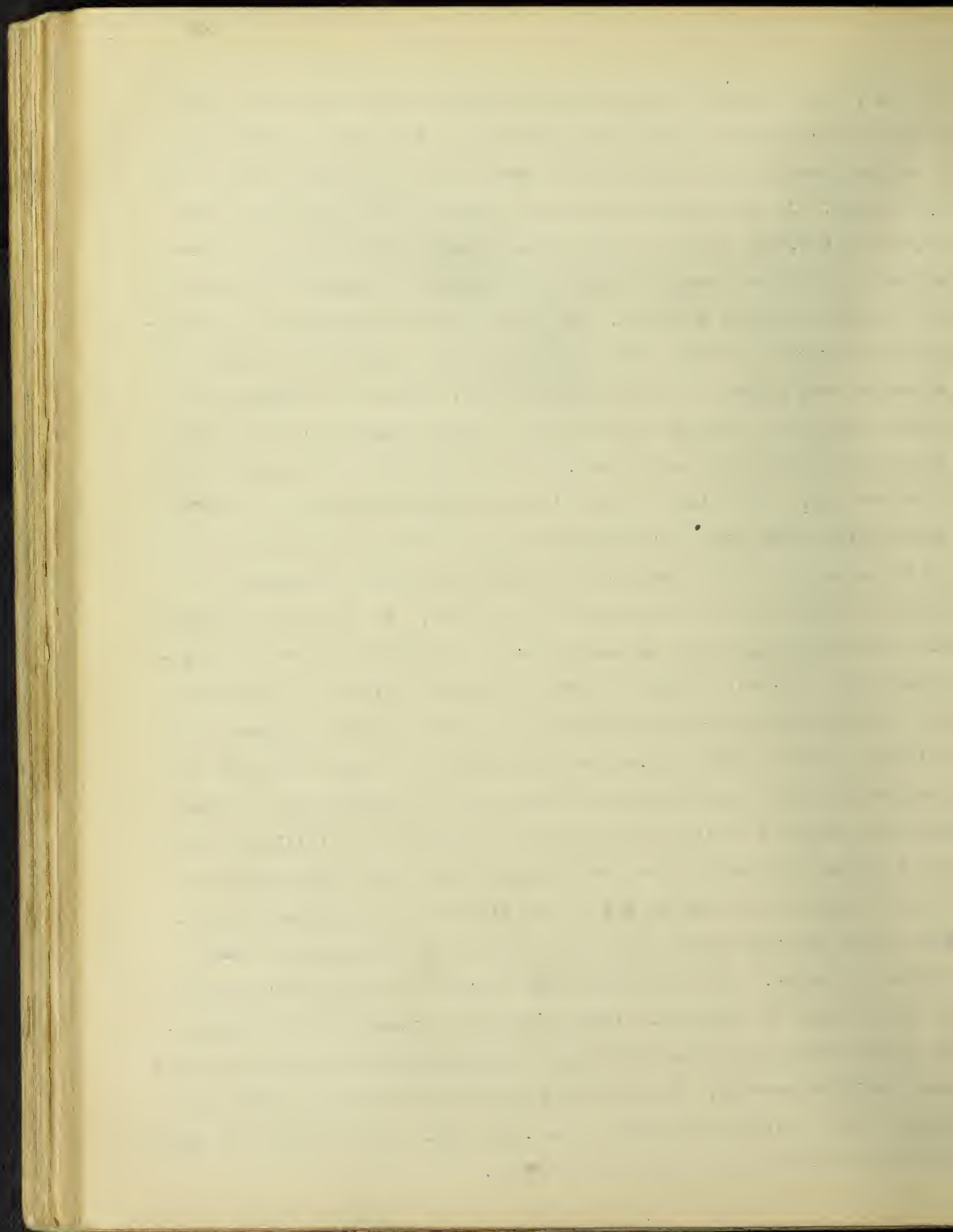
in my state because I was not willing to make any application to Congress for aid so long as the interest remained out of the state".¹ The state character of the work is emphasised repeatedly in the debates and the speeches of the Illinois delegation seem to indicate that they believed the state would construct the road itself. In the act the grant is made explicitly to the state of Illinois. Section 1 reads: "the right of way through the public lands ...is hereby granted to the State of Illinois for the construction of a railroad...."; section 2 : "there is hereby granted to the State of Illinois, for the purpose of aiding in making the railroad and branches aforesaid.....; Section 4: "the said lands hereby granted to the said State shall be subject to the disposal of the Legislature thereof, for the purposes aforesaid, and no other; Section 5: "if the said railroad shall not be completed within ten years, the said State of Illinois shall be bound to pay to the United States the amount which may be received upon the sale of any part of said lands by the State."²

~~(Thus the position of the Illinois Central project was recognized as radically different from ordinary railways.)~~

A third factor must be considered in connection with the railroad ----the economic condition of Illinois in 1850. As referred to in chapter I the central counties of the state were very thinly settled at that time and never could have a large population or wealth until internal improvements were built which would enable the products of that region to compete in the markets of the world. The prairies, although among the richest lands in the world, socially, were little more than a desert. So long as this condition continued to exist the industrial progress of the state was seriously handicapped. The economic isolation of the interior counties also had a marked influence on the political organization and life of the state. The construction of a central railroad, therefore, was a necessity rather than a convenience.¹



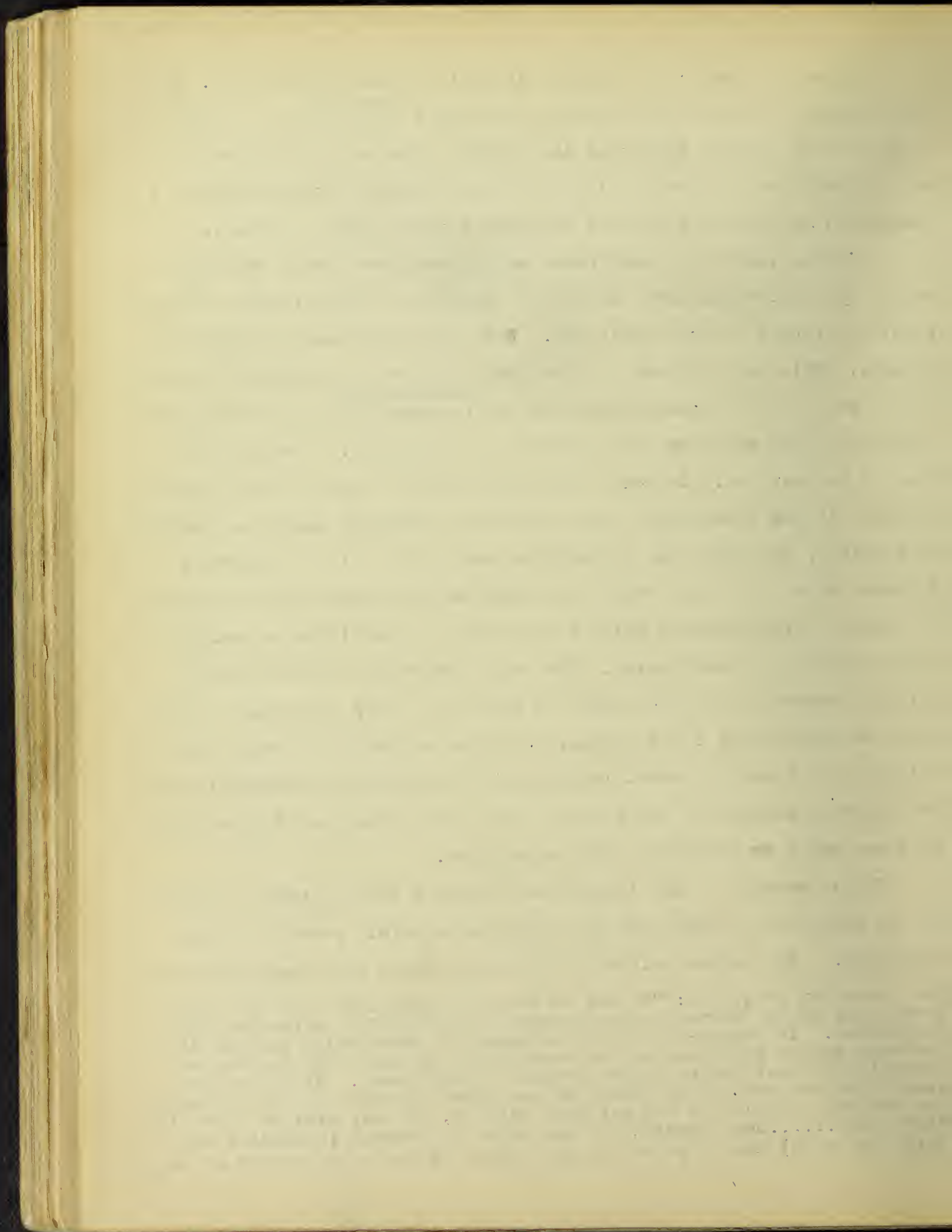
A fourth element that must be taken into consideration was the financial situation of the state government. From 1815 to 1850 Illinois had undergone the usual trying experiences of an undeveloped frontier state. In those thirty years the population had increased from 50,000 to 850,000, while the tremendous natural resources of the commonwealth offered opportunities for economic development far beyond the ability of local capital. As in other new communities the government endeavored to supply this lack of private capital and a number of measures were pushed with this end in view. Money was borrowed for banks, canal and railroad construction, highway improvement and even industrial enterprises to an extent not warranted by the wealth of the commonwealth. The failure of the Internal Improvement Plan of 1837-40 practically bankrupted the government and by 1850 principal and arrears of interest on the debt amounted to sixteen millions of dollars or nearly ten per cent of the wealth of the state. At times the treasury did not have enough money to pay postage on official letters and repudiation was narrowly averted in 1841 and again in 1842. Naturally the credit of the government was poor and state stock and bonds were selling as low as thirty cents on the dollars. To meet the interest charges and reduce the principal of the debt the constitution of 1848 placed a tax of 2 mills on the dollar for interest and 1 1/2 mills for the principal in addition to the ordinary state tax, thus making the total rate often as high as 75¢ on the \$100 for state purposes alone. High taxes and poor public credit reacted on the prosperity of the private industry. The years from 1840 to 1850 were the darkest period in the history of Illinois. Immigration was checked; capital hesitated to invest within the state boundaries; manufacturing and even agriculture suffered severely. Eastern and foreign capitalists had lost heavily on their Illinois ventures and, naturally, they hesitated to again risk investments in that part of the West.



The charter tax of the present Illinois Central Railroad Co. is the outcome of these four distinct conditions: the ^{peculiar} attitude of the people to the Central Railroad; the special terms of the Land Grant Act of 1850; the economic isolation of the central counties of the commonwealth; and the practical bankruptcy of the state treasury.

Congress passed the Land Grant Act on September 20th, 1850, and during the succeeding three months the Illinois Central project was the prominent factor in state politics. When the Legislature convened in January, 1851, the railroad and the grant had been thoroughly discussed in all parts of the commonwealth and the ^{construction} incorporation of the road was regarded as the most important matter at the session. The question was not an easy one. Economic conditions and the terms of the federal act made it imperative that the construction should be pushed as rapidly as possible, yet there was no definite plan that could be followed. Railways were but little beyond the experimental stage and the building of seven or eight hundred miles in the heart of the Illinois prairies was an unheard of undertaking. The state government and two strong private companies had been unable to build the road; the value of the grant was uncertain; local capital could not be had and foreign capitalists were loath to invest large sums in a doubtful enterprise; even the ultimate success of the road was not at all assured. Such were the problems which ~~he~~ confronted the Legislature.

In his message to the Legislature Governor French spoke at length of the Grant and the Railroad and suggested possible methods of construction. The points relating to the land grant and compensation to the state may be quoted: "It may be safely conjectured that the land grant will go far towards constructing the road, if it prove not quite sufficient. If this be a correct estimate of their value such an inducement may be presented to the capitalists to undertake it besides reserving a resulting pecuniary benefit to the state. It is not assumed that the state will engage in any form directly in the enterprise and whatever connection she may have with it, if any, will be in an indirect way..... Upon complete of the work the company (organized to build the road) may be permitted to deliver up in consideration of what



has been received upon the sale of lands a proportionate amount in state bonds to be previously ascertained or the company to be required thereafter to pay to the state a per centage upon the gross proceeds of the road; or, secondly, the company may be permitted to construct the roads, reserving the lands from sale until their completion (i.e. of the road) and then to pass into the hands of the company upon such terms as might be just to the state.....

Keeping in view, then, the important object to be gained----the early construction of the contemplated work while guarding against mere adventurers in whose hands the means of construction or the object itself might be endangered it may be proper to observe that to secure this object liberal offers should be made to induce capitalists to engage in the enterprise."

Since there were no definite proposals from investors before the Legislature until January 15th, that body was working in the dark. The attitude ~~of that~~ towards the undertaking may be found in two sets of resolutions introduced in the Senate on January 8th and 9th. Those of Senator Stuart, following the Governor's suggestions, are as follows:-

Resolved:

1st that the Governor, Treasurer, Secretary of State and Auditor shall be a commission to open books and receive subscriptions with such conditions as the law may prescribe

2nd. That the lands granted by the general government to the State of Illinois to aid in the construction of said road and branches be given to the company or companies constructing said road and branches.

3rd. That in consideration of the lands so granted said company or companies be required to pay annually to the state of Illinois----- part of the gross proceeds of said road forever.

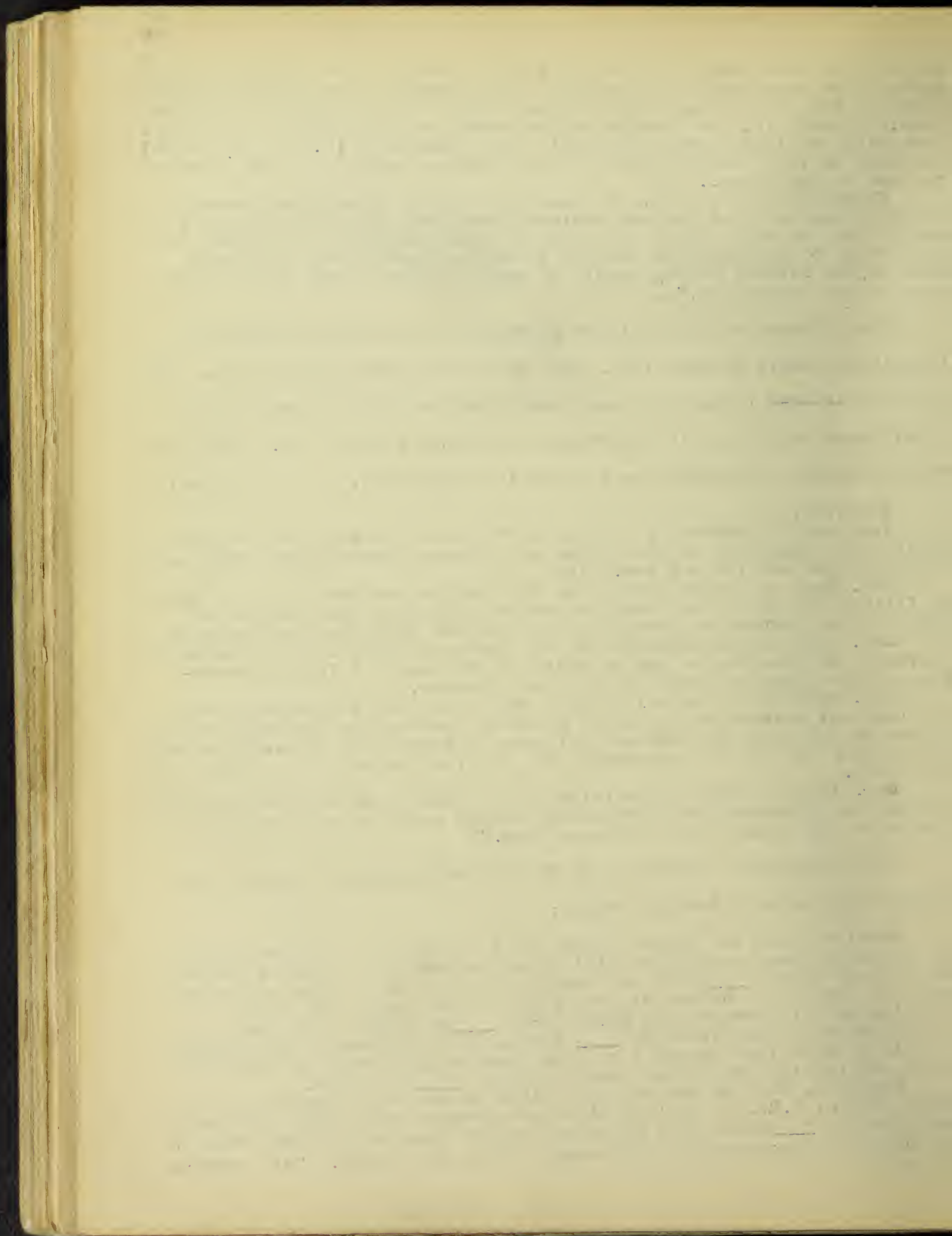
4th. That the state hold a lien upon said road and branches for the punctual payment of the gross proceeds reserved as aforesaid and to indemnify the state for any and all sums of money that the ~~sa~~state may have to pay the general government for the land provided to be sold as aforesaid.

5th. That the proceeds arising to the state from the gross proceeds reserved as aforesaid and from taxation upon said road and branches be devoted to the payment of the state debt."2

The resolutions introduced by Senator Gillespie are somewhat different from those of Senator Stuart:

Resolved that the proper course to be adopted in the construction of the Great Central railroad will be to incorporate a company and require them within ____ years to complete the road in a style and manner equal to any in the United States upon the wide gauge, the state granting to said company the payment of ____ per cent on the cost of construction for the space of ____ years. The Governor to be required to sell so much land as shall be found necessary to make up what the tolls and profits shall fall short of said ____ per cent.

Resolved, That we approve the following method of constructing the Great Central R.R., to wit: To allow the company which will construct the road in ____ years in a style and manner equal to the best road in the United States upon the wide gauge to have the lands. Said company



paying to the state the largest bonus in state indebtedness. The lands to be sold in a certain time.

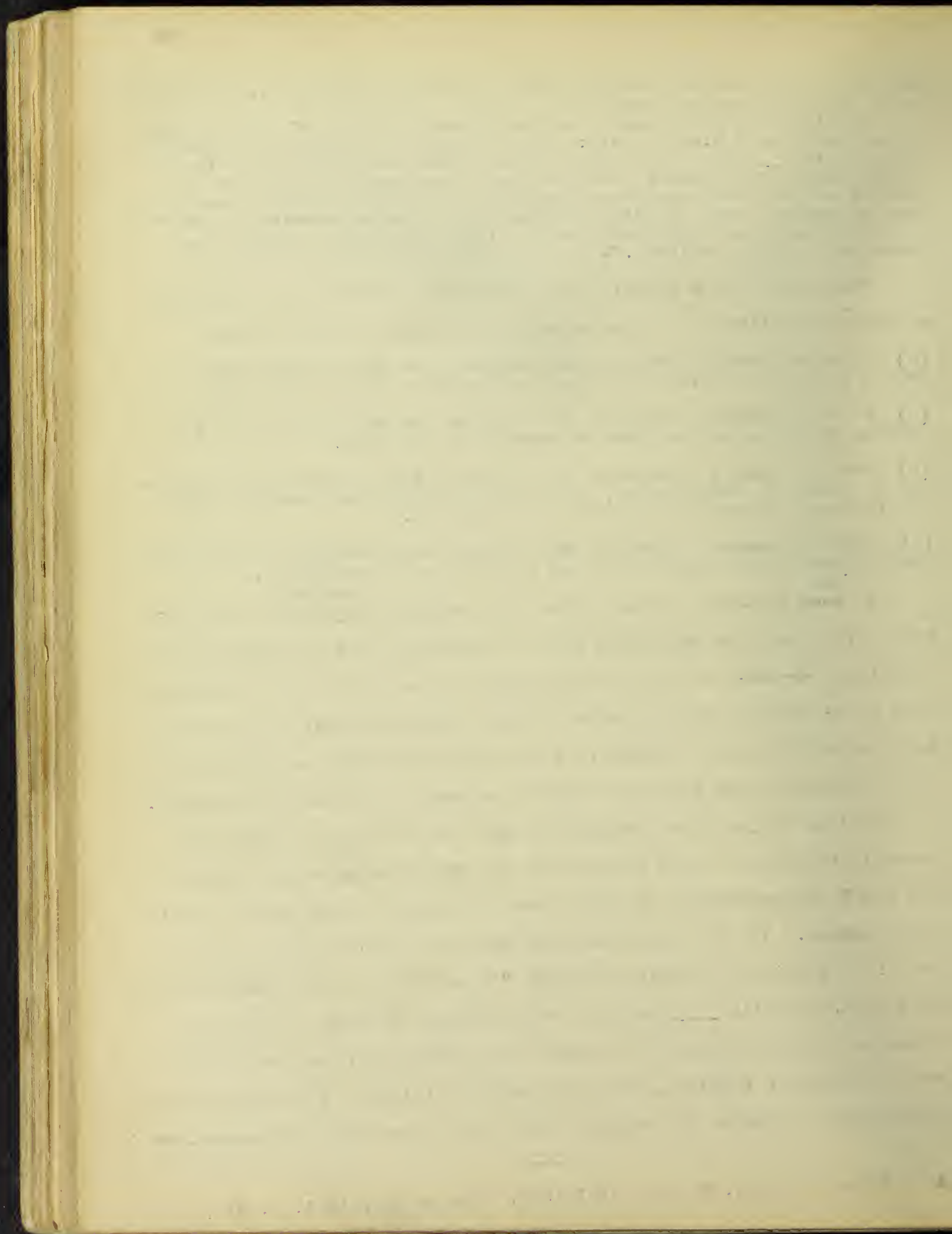
Resolved, That we approve the following method of constructing the Great Central R.R., to wit: Let a company be organized to build the road in ___ years in a style equal to the best road in the United States upon a wide gauge, have the lands appraised and taken by the company at half their appraised value, the state to receive dividends upon an amount equal to half the value of the lands as-sold, as well as of the proceeds of whatever of the lands may remain unsold after completion of the railroad."3

Thus, aside from actual state construction we have the following methods of utilizing the land grant and of payment to the state:

- (a) Private Company construct the railroad and pay to the state an amount of state indebtedness equal to the value of the land sold.
- (b) Private Company construct the railroad and pay the state a per centage of the gross receipts in payment of the land.
- (c) Private Company construct the railroad upon a guarantee of interest on const of construction, the state retaining the land and using the proceeds to meet the guarantee of interest.
- (d) Private Company construct the railroad and surrender to the state stock equivalent to half the value of the lands surrendered.

In each instance the land grant is regarded as ^{temporary} ~~one~~ a loan to the company which should be paid back after a specified term of years in state securities ~~as-also~~ in the other instances it is regarded as a permanent loan to be paid for by contingent annual annuities equal to a certain per cent of the gross receipts. It is understood that any proceeds received from the land grant go towards reducing the state indebtedness.

Various projects were suggested, but the only one of importance actually presented to the Legislature was ^{the} ~~one~~ from a group of Boston and New York capitalists who were later chartered as the present railroad company. In their memorial they made the following offer to the state: to pay into the state treasury "from and after the completion of said road, annually ___ per cent of the gross earnings of the said railroad without deduction or charge for expenses, or for any other matter or cause; provided, that the state of Illinois will grant to the subscribers a charter of incorporation, with terms and limitations, as

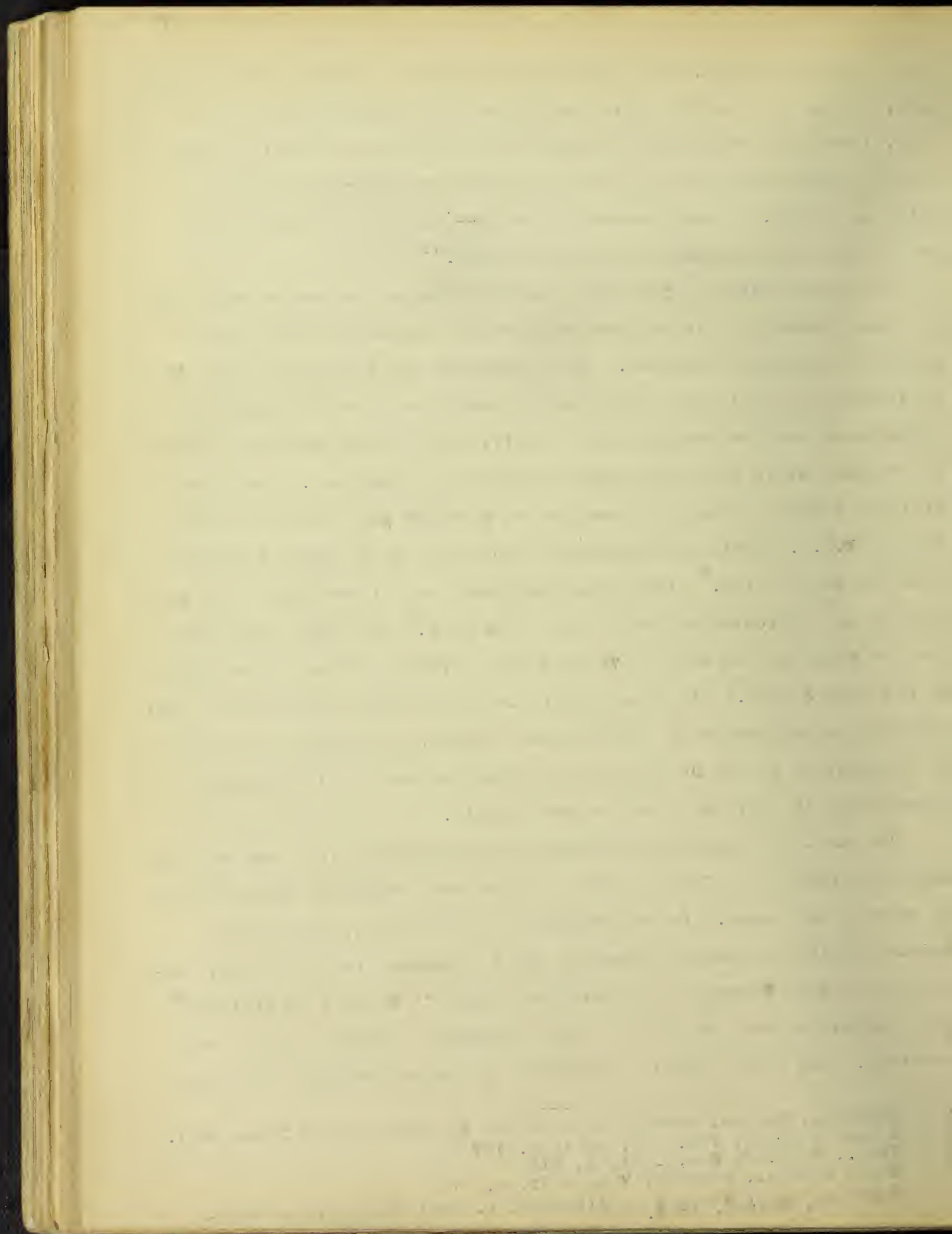


they, in their wisdom, may think fit, as shall be accepted by said company, and as will sufficiently remunerate the subscribers for their care, labor and expenditure in that behalf incurred, and will enable them to avail themselves of the land donated by the ~~as~~ said act to raise the funds, or some portion of the ~~and~~ funds necessary for the construction and equipment of said railroad."¹

The Memorialists represented strong financial interests which had had large experience in railway construction and their offer was regarded as entirely acceptable. Their memorial was presented on the 15th of January and bills were immediately introduced into both houses incorporating the Memorialists into the Illinois Central Railroad Company. The various bills were thoroughly discussed in committee. The Senate bill was reported from the Committee on February 5th and on that date Senator W.L.D. Morrison introduced a substitute bill almost identical with the present law.² After some amendment and discussion it was passed on the following day by a vote of 23 to 2.³ The next day it passed the House by the vote of 72 to 2 and on February 10th it was signed by Governor French.³ It is generally understood that the Morrison bill represented the wishes of the railroad company, but owing to the lack of information in the Journal of the Senate we have no information showing how it differed from the other bills.

So far as the question of taxation was concerned it seems the only important point of difference was over the per centage of gross receipts to be paid the state. In the message of the Governor, the various Senate resolutions and the Memorial the per centage is left blank. According to John Wentworth and Davidson & Stuve's History of Illinois⁴ the capitalists were willing to offer as high as ten per cent of the earnings. The first definite statement in the proceedings of the Le-

1 Memorial, Special Message of Governor French, January 15th, 1851.
 2 Senate Journal, Feb. 5th, 1851, p. 197 ff.
 3 Ibid., February 6th, 1851, p. 215.
 4 House Journal, February 7th, 1851, p. 279.
 5 David & Stuve, History of Illinois, p. 580; vide Chicago Daily Democrat, August, 1853.

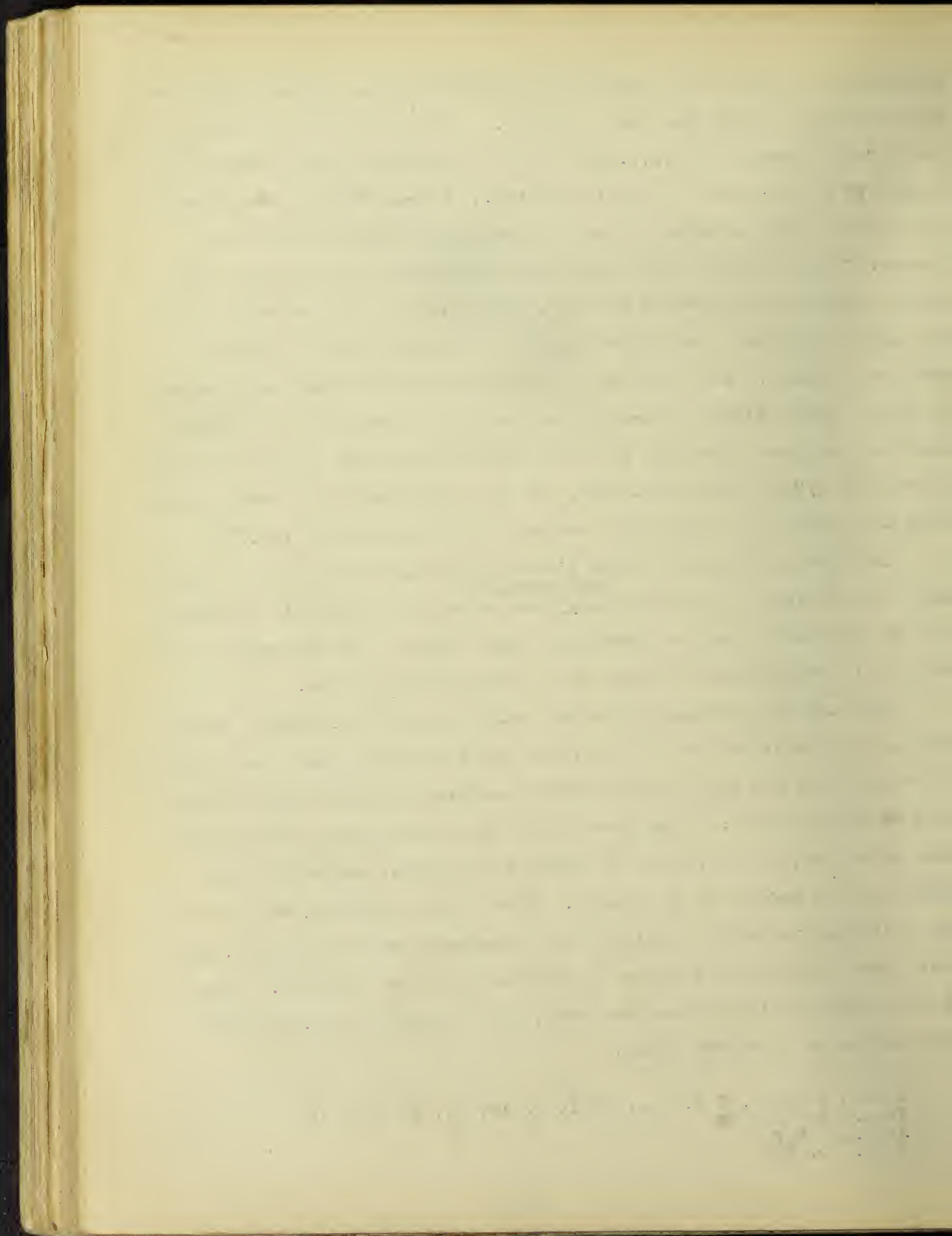


gislature is found in the substitute offered by Mr. Morrison where the present rate of seven per cent is given. Section 18 of that bill read: "said company shall....paid into the treasury of the State of Illinois 7% of the gross or total receipts..."¹ and Section 22 provided for a tax on the property of the railroad, as at present, and then states: "That so much of said taxes as would amount to not more than three sevenths of the seven per cent herein provided to be paid out of the gross proceeds of said road shall be deducted from the amount of such per centage. And whenever by law the assessment upon such property shall exceed 3/4ths of the one per cent per annum then such excess shall be deducted from such per centage, although such reduction might exceed the 3/7ths above mentioned, and the corporation is hereby exempt from all taxation of every kind except as herein provided for."²

In effect the above wording places a straight seven per cent tax upon the receipts of the railroad, ^{approximately} four sevenths of which is a payment for the land grant and the remainder state taxes. The substance of the article is practically the same as in the present charter.

The same day the substitute bill was introduced Mr. Stuart, probably as an intentional effort to raise the per centage paid the state, introduced and had passed an amendment striking out that part of section 22 quoted above.³ This placed the tax at seven per cent for the land grant and, in addition, the usual state taxes, making the tax larger by the amount of the latter. This action, however, was reversed the following day by the adoption of an amendment presented by Mr. Judd which made the wording conform to what is now in the charter.⁴ Some slight verbal modifications were made, but otherwise the tax sections were unaltered in either house.

1 Senate Journal, Feb. 5th, 1851, p. 197 ff. Section 18
 2 Ibid., Section 22
 3 Ibid., p 207
 4 Ibid., p. 208



Some years after the passage of the act the action of the Legislature in fixing the rate at seven per cent was bitterly attacked. Colonel, later Governor Bissell, then in the Federal House of Representatives, was instrumental in securing the present charter and in his campaign for governor six years later he was accused of having secured the adoption of seven per cent when the railroad would have yielded ten. Charges of bribery on the part of the company have also been made, presumably in connection with this part of the bill. Both accusations might well have arisen in the heat of the sharp political campaign of 1856, even though there was no tangible evidence to support the statements. However, it is not pertinent to this study to discuss the accuracy of the two charges. In chapters III and IV the question of the real value of the charter tax is treated in considerable detail and it is unnecessary to repeat the discussion. At the time the rate was considered quite satisfactory and the Legislature received considerable praise for its handling of the land grant question.

Returning to the charter we find that the act as finally approved agreed very closely with the Stuart resolutions of January 8th. The document was well drawn and, on the whole, was one of the most careful^y drawn laws of Illinois. The parts relating to the charter tax are contained principally in sections 18 and 22, with incidental references in other sections. Section 1 incorporates the Illinois Central Railroad Company with "all the powers, privileges, immunities and franchises....which may be needful to carry into effect fully the purposes and objects of this Act"; Section 2 authorizes the company "to survey, locate, construct, complete, alter, maintain and operate a railroad....." Section 3 gives the corporation the right of eminent domain and also grants it free a right of way 200 feet in width to be taken from the state or federal lands; Sections 4 to 14 inclusive define in detail the

rights and duties of the company; section 17 grants to the railroad "the right of way and all lands which may be selected along the lines of said road and branches within this State, under the grant made by the government of the United States.....and also the right of way which the State of Illinois has heretofore obtained along and on the line of said railroad and branches.....a lot of ground...within the City of Cairo....and all the grading, embankments, excavations, surveys, work, materials, personal property, profiles, plans and papers done by or in behalf of the state of Illinois." This is subject to the condition that the Railroad execute a mortgage to the state for the execution of the act of Congress of 1850 and the proper construction of the railroad, also a bond for \$300,000 to the same effect.

Section 18 relates the tax and reads as follows:-

In consideration of the grants, privileges and franchises herein conferred upon said company for the purposes aforesaid, the said company shall, on the first Mondays of December and June in each year, pay into the treasury of the State of Illinois five per cent on the gross or total proceeds, receipts or income derived from said road and branches for the six months then next preceeding. The first payment of such per centage on the main trunk of said road to commence four years from the date of said deed of trust, and on the branches, six years from the date aforesaid, unless said road and branches are sooner completed, then from the date of completion. And for the purpose of ascertaining the proceeds, receipts or income aforesaid, an accurate account shall be kept by said company, a copy whereof shall be furnished to the Governor of the State of Illinois; the truth of which account shall be verified by the affidavits of the treasurer and secretary of such company. And for the purpose of verifying and ascertaining the accuracy of such account, full power is hereby vested in the Governor of the State of Illinois, or any other person by law appointed, to examine the books and papers of said corporation, and to examine under oath, the officers, agents and employees of said company, and other persons. And if any person, so examined by the Governor or other authority, shall knowingly and wilfully swear falsely, or if the officers making such affidavits shall knowingly and wilfully swear falsely, every such person shall be subject to the pains and penalties of perjury."

Sections 19 to 21 relate to details in the construction of the road. Section 22 refers to the exemption of the railroad from taxation and is quoted in full as follows:

"The lands selected under said Act of Congress, and here by authorized to be conveyed, shall be exempt from all taxation under the laws of this State, until sold and conveyed by said corporation or trustees, and the other stock, property and effects of said company shall be in like manner exempt from taxation for the term of six years from the passage of this Act. After the expiration of six years, the stock, property and assets belonging to said company shall be listed by the president, secretary or other officer, with the Auditor of State, and an annual tax for State purposes shall be assessed by the Auditor upon all the property and assets of every name, kind and description belonging to said corporation. Whenever that taxes levied for State purposes shall exceed three-fourths of one per centum per annum such excess shall be deducted from the gross proceeds or income herein required to be paid by said corporation to the State, and the said corporation is hereby exempted from all taxation of every kind, except as herein provided for. The revenue arising from said taxation, and the said five per cent of gross or total proceeds, receipts or income aforesaid, shall be paid into the State treasury in money, and applied to the payment of interest paying State indebtedness, until the extinction thereof; Provided, in case the five per cent provided to be paid into the State treasury, and the State taxes to be paid by the corporation do not amount to seven per cent of the gross or total proceeds, receipts or income, then the said company shall pay into the State treasury the difference, so as to make the whole amount paid equal at least to seven per cent of the gross receipts of said corporation."

Section 23 provided for the acceptance of the charter; section 24 stated that "The State shall have a prior lien upon said road and branches, and all the appurtenances and stock thereof, for all penalties, taxes and due, which may accrue to the State from said corporation, as herein provided; which lien of the State shall take precedence of all demands, judgments or decrees against said corporation.

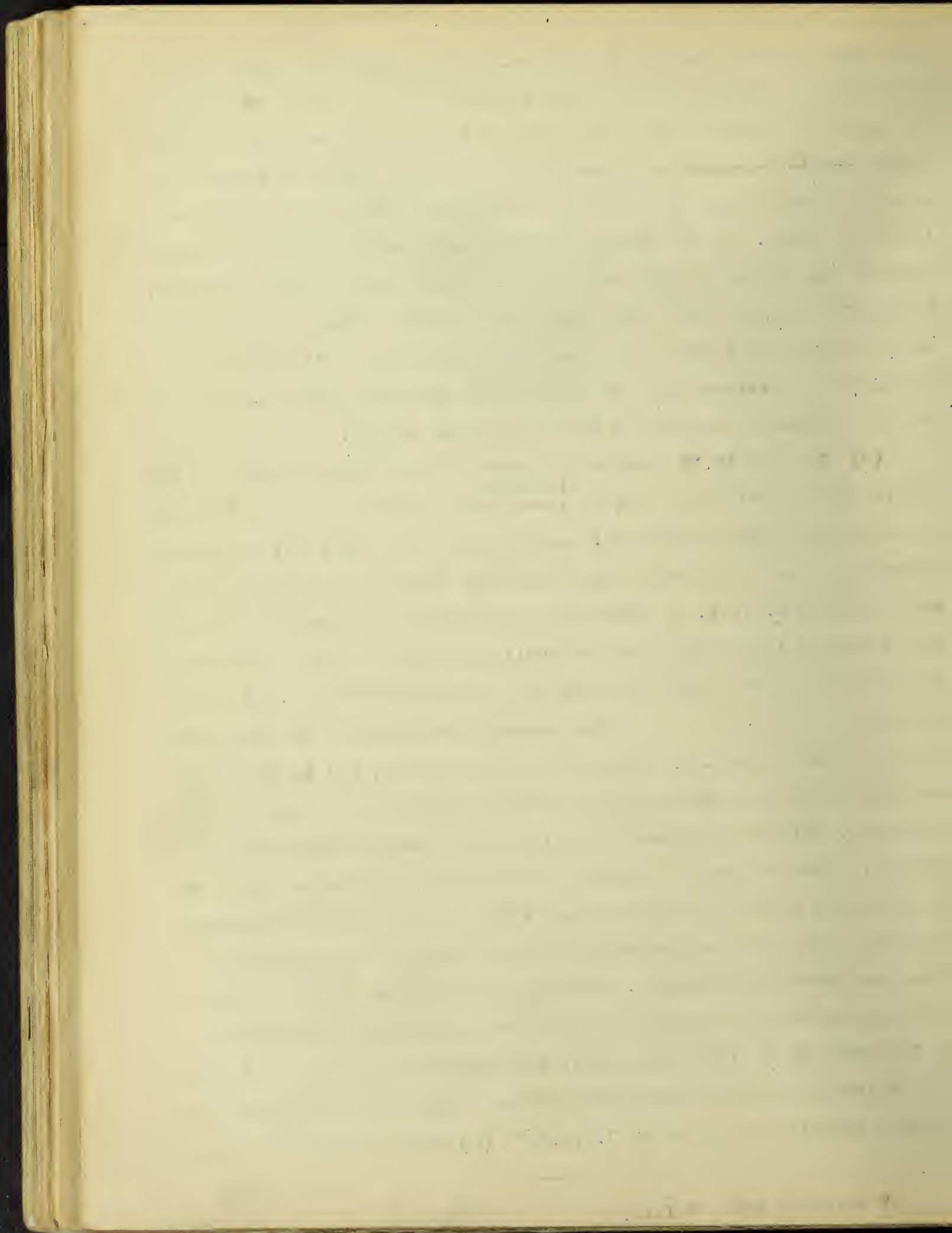
Section 25 relates to owners of land on the land grant and section 26 makes provision for the acceptance of the act in case the incorporators neglect to accept its provisions. In the last section it is provided that "This Act shall be deemed a public Act, and shall be favorably construed for all purposes therein expressed, and declared in all courts and places whatsoever, and shall be in force from and after its passage." For the purposes of the tax the charter provisions may be grouped under three heads; (1) Section 18 imposes a tax of ~~xxx~~ five per cent on the gross receipts of the railroad "in consideration of the grants, privileges and franchises herein conferred." According to the strict wording this is a franchise tax, but from the historical standpoint the five per cent of gross receipts is really a payment for the

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land grant and the remains of the state work. The five percent is distinct and separate from the tax provided for in section 22 and can hardly be regarded as a tax at all. From the various schemes suggested the Legislature as a payment for the land grant the Legislature adopted a per centage of the gross revenue as easy to collect and not liable to fraud. In the opinion of that body such an amount or annual annuity represented a fair return for the donation given the railroad. In considering the return that the state received from the land grant the five per cent payment alone must be considered. Since the land was given the ~~republic~~ state by the federal government this portion of the total payment represents a ~~very~~ very handsome profit.

(2) Section ~~18~~ 22 exempts the property and franchises of the Illinois Central Railroad from ^{Illinois} (all local taxes except the general property tax of the state government) taxation in three ways; (a) perpetual exemption of the land grant until sold and conveyed by the trustees. As decided in I.C.R.R. vs McLean¹ this is really an exemption of government property in the way that the public lands were exempt from state taxes for five years after sold by the federal Land Office. In the case of this exemption was held to be perpetual so long as title to the land remained in the railroad. (b) Exemption of the franchise and property of the railroad during the period of construction, which was estimated at six years from the passage of the charter. This provision clearly is a favor to the company and seems to have been given for two reasons. First it would make the proposition more attractive to investors at a time when the difficulty of obtaining money was greatest. Second, the property of the railroad until the completion of the road in accordance with the terms of the act of September 20th, 1850, was really mortgaged to the state of Illinois and ultimately to the federal government. This is the view taken by Justice Schofield in McLean vs I.C.R.R.² (c) Exemption of the railroad

1 17 Illinois 290. 2 Ibid.



from all Illinois taxation except the strict general property tax of the state government. Justification for this exemption is found in the service rendered the state. In the words of the Supreme Court of Illinois in *Neustadt vs I.C.R.R.* "In consideration of the undertaking of the company to construct a great thoroughfare which should involve the expenditure of millions and which was an experiment and the company was relieved from the payment of all other state taxes...."¹ Even if no tax whatever had been placed on the road the additional value given a large portion of the state and the increased political and economic unity brought about from improved communication would have justified at least a partial exemption from local taxation. The courts have held that the exemption, strictly speaking, was not an exemption at all, but merely a commutation of taxes into a specific payment. Legally this may be correct, but historically considered the exemption seems to have been intended as an encouragement for private capitalists embarking on an extra hazardous undertaking. Whether these reasons were sufficient cause for exemption was legislative question and although it is now prohibited by the constitution it was customary at the time and was defended on the ground that the railroad would develop the territory in a way to more than compensate for any loss of revenue.

While freed from local taxation the Illinois Central was subject to the full state tax. Section 22 provides that ~~the railroad shall~~ "After the expiration of six years, the stock, property and assets belonging to said company shall be listed by the president...with the Auditor of State, and an annual tax for State purposes shall be assessed by the Auditor upon all the property and assets of every name, kind and description belonging to said corporation." The maximum state rate is fixed at 75¢ on the \$100.00, any tax over that amount being deducted from the 5% gross receipts payment of section 18. There is a further

¹ *Neustadt vs I.C.R.R.*, 31 Ill. 485

1871

Jan 1st

Feb 1st

Mar 1st

Apr 1st

May 1st

June 1st

July 1st

Aug 1st

Sept 1st

Oct 1st

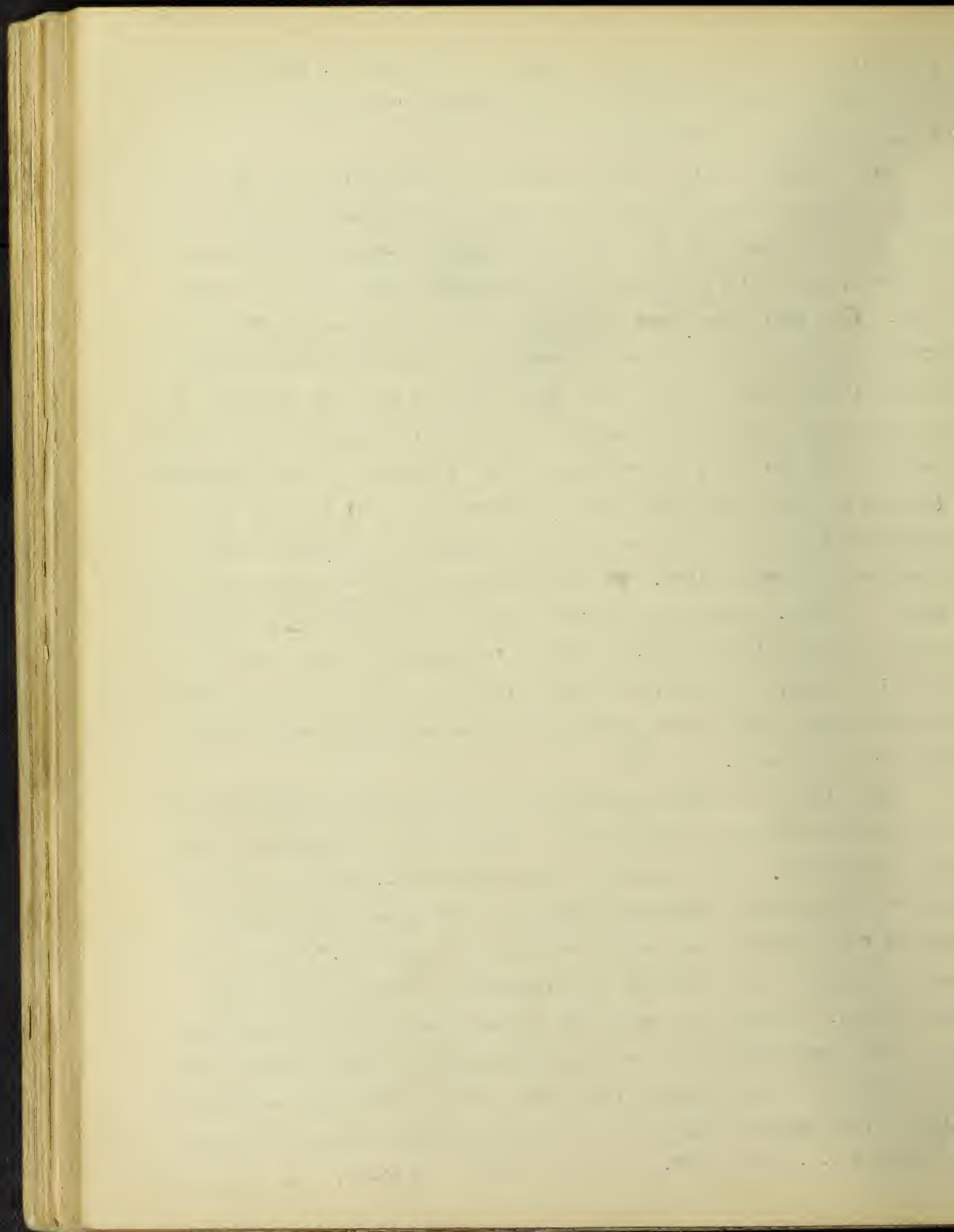
Nov 1st

Dec 1st

provision that in case the state taxes do not amount to 2% of the total gross receipts of the railroad the company "shall pay into the State treasury the difference".

At the present time the state tax is considerably under 2% of the gross receipts of the railroad since the general property tax levy of the state government is less than one tenth the total average local assessment, but in 1851 the state rate was much higher than the local rate. From 1851 until 1869 the state tax was approximately 75¢ on the \$100 or over and when the charter was granted the Legislature seems to have believed that the tax would exceed the two per cent minimum. If the usual state tax had been levied on the full valuation of the Illinois Central Railroad, irrespective of the valuation of other property, (the two per cent would have been the minimum instead) it would have been much larger than the two per cent minimum in the entire period from 1850 to 1880 or 1890. Why this was not the case is explained on page ^{minimum is a} infra. Therefore, we may regard the two per cent provision against under valuation of the railroad's property, rather than as an additional tax. To facilitate the collection of the tax and prevent undervaluation the section provides that the Auditor of State shall make the assessment.

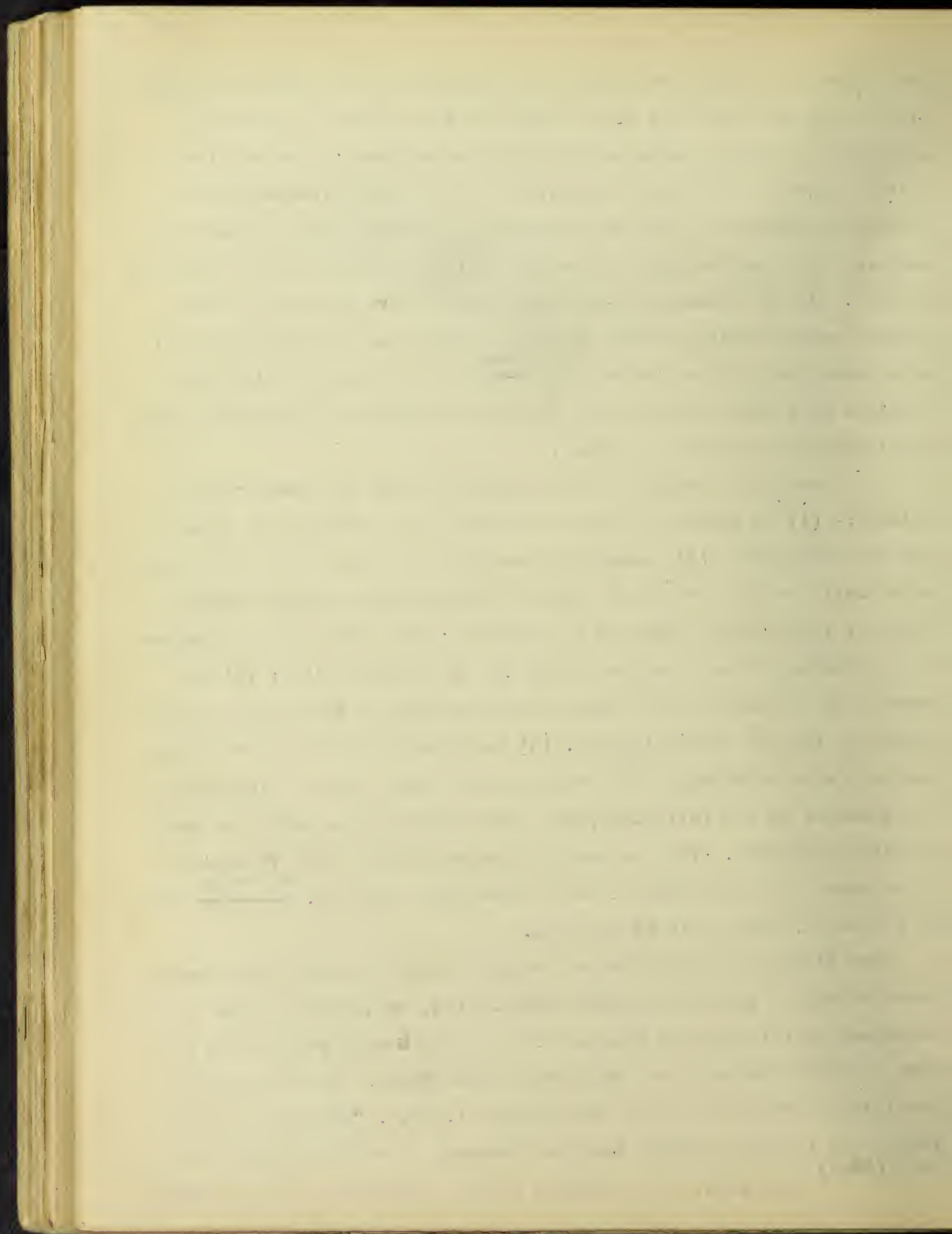
The distinctive state character of the railroad is emphasized in the clause stating that "the revenue arising from said taxation, and the said five per cent of gross or total proceeds...shall be paid into the State treasury in money and applied to the payment of interest paying State indebtedness until the extinction thereof." This enactment clearly is the result of the financial condition of the state government. Loaded down with debt and burdened with heavy taxation the state appropriated to the state treasury the entire revenue from the Illinois Central and the land grant. The provision of the federal Act of 1850 that government land along the railroad should be doubled in price, i.e. sold at \$2.50 per acre instead of \$1.25; the right of



the railroad to charge what prices it saw fit for its lands; the exemption of the road from all local taxation; the refusal of the state government to divide among the counties any portion of the profits arising from the five per cent payment of the Central; ~~week~~ these various arrangements acted as an indirect, and by no means unimportant tax upon the counties lying along the railroad in favor of the state as a whole. In the Constitutional Convention of 1870 this part of the charter was bitterly attacked by the counties near the railroad and it is probable that if the heavy state ^{debt} ~~tax~~ had not existed in 1851 the receipts from the railroad would have been divided in some manner among the local tax bodies of the state.

The important features of the charter tax may be summarized as follows:- (1) 5% payment of gross receipts of the railroad in return for the land grant; (2) exemption from taxation during construction and perpetually on the government land not sold, together with exemption from all local taxes. This is an inducement made the railroad company at the expense of the counties along the the proposed line; (3) the payment of the usual state taxes, with a minimum of 2% of the gross receipts to prevent undervaluation; (4) the pledge of the entire charter tax as a kind of sinking fund for the state debt. In the discussion of the payments in the following pages these distinctions should be kept in mind constantly. For the sake of simplicity the total 7% payment is referred to as the charter tax or seven per cent tax, ^{although} ~~but~~ while this is incorrect, since only 2% is a tax,

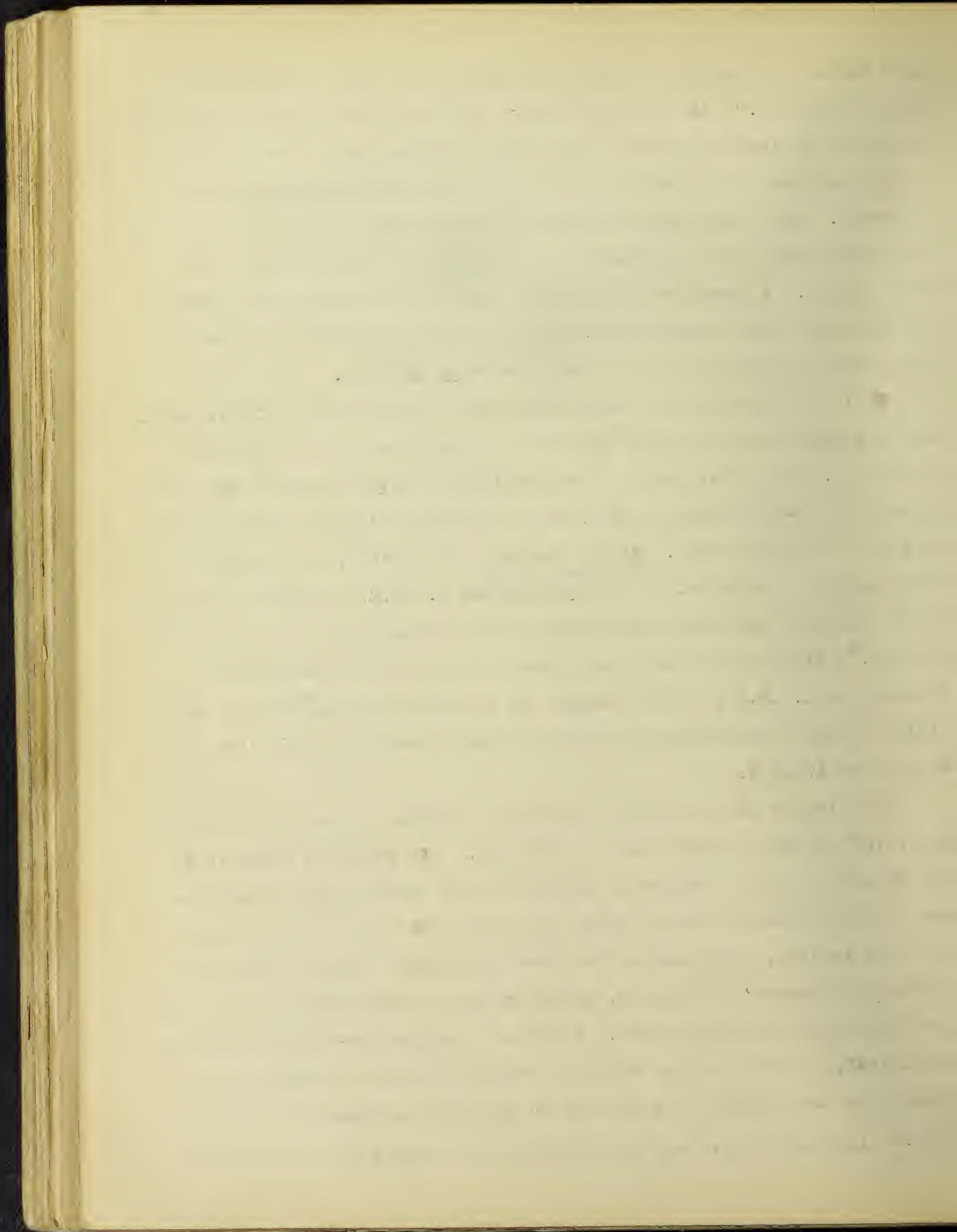
The Illinois Central charter, with the tax features, was formally accepted by the promoters on March 19th, 1851, and, by the terms of the Dartmouth Decision of the Supreme Court of the United States, has become a contract between the Railroad and the State. In the words of the Illinois Supreme Court in *Neustadt vs I.C.R.R.* "The act to incorporate the Illinois Central Railroad Company, of which the above section (22nd) is a part, is a contract between the state and the company



which cannot be changed or annulled without the consent of both contracting parties."¹ As the earnings of the road have increased the tax has become an important part of the state revenue and it has not been to the interest of the legislature to release the corporation from the agreement. The constitutionality of the act has been fully sustained by the state courts and the terms of the original contract are in full force to-day. A number of differences have arisen between the company and the state, but they have been settled by arbitration or friendly suits and the relations of the two have been ^{on the whole} amicable.

While the charter as a whole went into effect on March 19th, 1851, the 5% payment and the state tax did not come into force until somewhat later. The first test of the legality of the act came in ~~xx~~ a suit brought by McLean county in 1854-1855 for the usual local taxes on the property of the railroad. At the December term, 1855, the Supreme Court made its decision, ^{of the case} the title being ~~xx~~ I.C.R.R. vs. McLean County, which sustained the constitutionality of the exemption feature of the charter.² Eight years later the former decision was sustained in Neustadt vs I.C.R.R., a suit brought by La Salle County,³ and the principle of those two cases was accepted without question until 188 in Decatur vs I.C.R.R.

The first payment of 5% of the gross earnings was made on October 31st, 1855 without dispute by the railroad. On February 10th, 1857 the property of the road became subject to the state tax and the company, in accordance with the terms of section 22, listed its property with the Auditor. Mr. Dubois, who then held that office, refused to accept the company's valuation, placed ~~x~~ his own valuation on the road and brought suit in the courts. A decision was made ~~ea~~ at the November Term, 1861, in favor of the Railroad, which in practice limited the payment by the company to a maximum as well as a minimum of seven per cent.⁴ Abraham Lincoln was attorney for the company and was instrumen-



tal in obtaining the favorable judgment. The decision is discussed on page of this chapter. From 1859 to 1905 the Auditors have made no attempt to assess the property of the railroad.¹ As Auditor Lippincott special stated in his report for of January 30th, 1871: "The case gained by the Illinois Central R.R. Company over the assessment brought by Auditor Dubois rendered it certain that any valuation which would produce a tax over and above the 2% of the gross earnings of said road would be again defeated.....the time and expense of an assessment would be useless and a mere form without any purpose."² This report was in reply to resolutions of the General Assembly passed on January 24th, 1871, and seems to have fully satisfied that body.³

In December 1861 and June 1862 the railroad did not pay the full amount of the taxes, due in part to financial embarrassment and in part to a question whether the taxes should be paid in currency or gold. The "President claims the right to report as gross earnings of the road the amount received in currency reduced to a specie basis, or a discount equal to the difference between the market value of paper and specie."⁴ The matter was taken to the Supreme Court, but evidently it was decided by arbitration since no formal decision was made by the Court.⁵ In practice the payments were made on a currency basis, i.e. payments made in currency or in gold equivalent to discount on the currency.

At times the seven per cent payment was a severe strain on the resources of the railroad and this was particularly true in the period before the Civil War when the net earnings were insufficient to meet interest charges. As a result it seems the railroad endeavored to secure action by the Legislature either reducing the tax or abolishing it altogether. Considering the circumstances of the road it is not at all surprising that this action was taken. As a protest the Auditor in his

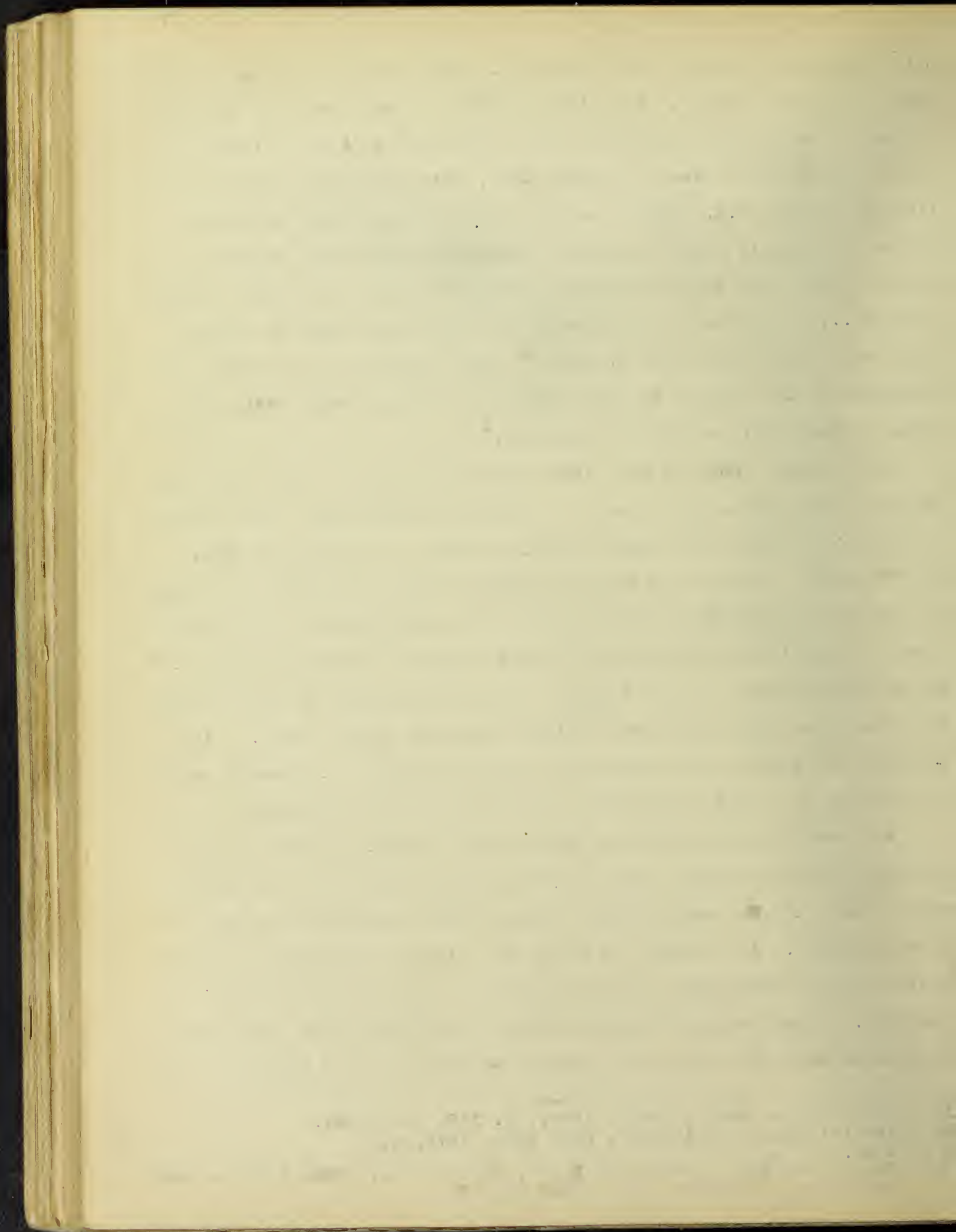
1 Brief of the State, March, 1908,, p. 152, section 67.

2 Special Report of Auditor, Jan. 30th, 1871, p.

3 Ibid.

4 Special Message of Governor Yates, January 5th, 1863, Reports p349

5 Decisions of Supreme Court, 1862 to 1870.



biennial report for 1857-1858 made the following statement: "Whatever may be the present embarrassment of that company the General Assembly should be careful to recognize that not only now, but in all future time so long as that company has a corporate existence, a large and constantly augmenting proportion of taxable resources of the state must be under its control and ownership. Nothing could be more dangerous and.....to the interests of the people of the state, however specious they may now appear, than for the state to surrender to this or any other corporation the great constitutional privilege of taxing its property according to its value."¹

The protest was successful and nothing more is heard of this proposal. However, whether justified or not, there seems to have been a feeling among the people of the state that the Illinois Central was anxious to rid itself of its charter requirements. The charter was given by the Legislature and that body could repeal the whole or any part of it, provided the consent of the corporation was obtained, as in the case of the Great Western Act of 1849. This created the possibility that the Legislature might be induced, through legitimate or illegitimate means, to withdraw the special tax or modify it in the interest of the railroad. Considering the large sums of money involved in the tax payments, the value of any change to the company, the low standards of public morality held by the Illinois legislatures of the Fifties and Sixties and the general laxity in regard to public service corporations it is evident that a change in the law might not be an idle fancy. That no attempt was made to modify the terms of the tax is no proof that such an attempt would never be made; at any rate so long as the question was within the power of a legislative body which might be influenced the people believed there was danger.

1 Biennial Report, Auditor of Public Accounts, Dec. 1, 1858.

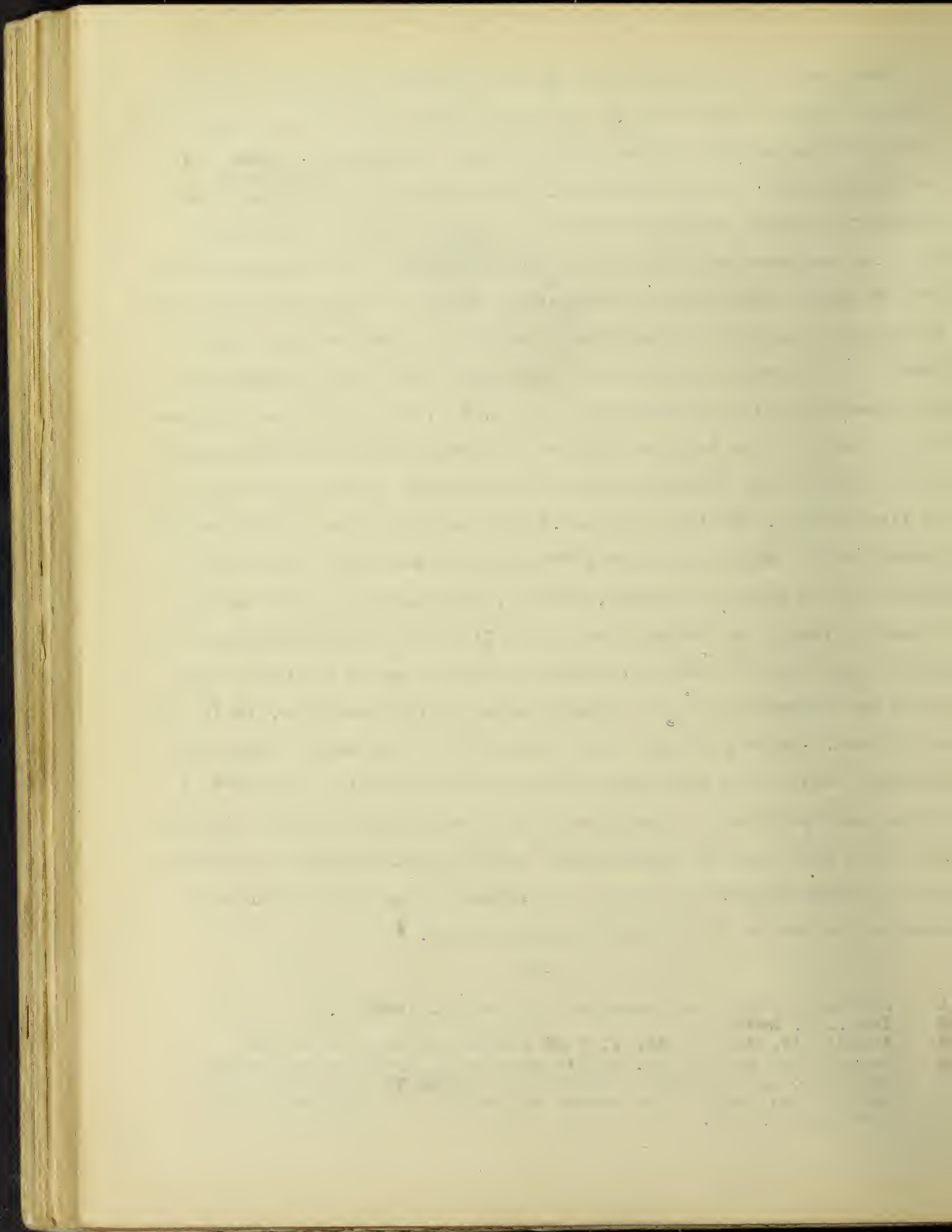
Soon after the construction of the railroad there arose a demand that the charter tax be placed beyond the power of the legislature and this view was accepted by the Constitutional Convention of 1862. At the commencement of the session Mr. Duff introduced an amendment providing "that there should be inserted a provision in the constitution securing the seven per cent of the gross earnings of the Illinois Central Railroad Company to the state^{so} as to place the same beyond the contingency of surrender to any future legislature and that the money arising therefrom be constituted a permanent fund for the support of the common schools throughout this state."¹ The question was referred to the Committee on Railroad Corporations which made an investigation of the subject and finally reported an amendment to the Constitution in line with Mr. Duff's resolution.² The provision was adopted without opposition and was as follows: "The General Assembly of this state shall have no power to release, suspend, modify, alter or in any way or manner impair the obligations of the Illinois Central Railroad Company to pay into the state treasury all sums of money secured to the state by the charter of said company approved February 10th, 1851; nor to release, suspend, modify, alter, amend or in any manner impair any right of taxation or lien secured to the state by said charter."³ Although this particular section met with general approval the Constitution as a whole was so objectionable that its ratification was defeated by a decisive popular vote and the original status of the charter tax remained unchanged during the next eight years. #

1 Journal of the Constitutional Convention, 1862, p. 55

2 Ibid., p. 363-4

3 Article IV, Section 38; p. 1082 Journal of the Convention.

Compare the part of Mr. Duff's resolution relating to schools with resolutions in the Convention of 1869-70 providing that a part of the tax receipt should be used for the support of the state university.



In the interval between the Convention of 1862 and that of 1869 the need of Constitutional limitations on the power of the Legislature became more evident, while the Lake Front Bill of 1869 and the general opposition to railroads made the Illinois Central very unpopular throughout the state. On the other hand the need-fee influences which had limited the tax receipts to the state treasury had become unimportant through the reduction of the debt and the increased wealth of the state. The expenditures of the local bodies had increased much more rapidly than had those of the general government and many of the counties along the Central look with hungry eyes on the receipts from the charter tax. As a result the question was complicated by many side issues.

In the early days of the session a number of resolutions were introduced regarding the tax.¹ On January 28th the Committee on Revenue reported the Article on Revenue, the first section which read: "All moneys accruing to the state by virtue of the charter of the Illinois Central Railroad Company shall be paid into the state treasury and thereafter constitute a portion of the revenue of the state; and the General Assembly shall have not power to release or otherwise discharge said railroad company from the payment thereof; provided, however, that nothing herein contained shall be constructed as affecting the application of said moneys to the payment of interest bearing state indebtedness until the extinction thereof as provided by the charter of said company."²

On March 14th, 1870, the Revenue Article was taken up in Committee of the Whole and section 1 was bitterly attacked by certain delegates from counties along the railroad who attempted to amend it in such a way that at least a part of the receipts would be divided among counties bordering on the Illinois Central in proportion to mileage.³

1 December 20th, p. 78; December 17th, p. 72; December 20th, p. 84; January 12th, p. 176; January 14th, p. 192. Debates of Constitutional Convention, 1869 to 1870.

2 Ibid., p. 321

3 Ibid. March 14th, p. 1200. Amendment of Mr. Moore.

The majority of the delegates were opposed to such a division, largely, so it seems, because the number of counties benefited was smaller than those not benefited, and all attempts to secure a change were defeated. The discussion was again renewed on the 13th of April when the Committee of the Whole adopted a substitute proposed by Mr. Buxton which altered the phraseology of the amendment though not its real meaning.¹ On May 2nd the Convention concurred in the report of the Committee of the Whole and thus placed itself squarely in opposition to any distribution of the charter tax.² While the minority was defeated it was not silenced and the discussion aroused such bitterness that for a time the success of the new Constitution was threatened. To ~~etiate~~ remove this danger the Convention voted to report the section relating to the Illinois Central tax as a separate amendment.³ The following was submitted as a separate article: "No contract obligation or liability whatever of the Illinois Central Railroad Company to pay any sums of money into the state treasury nor any lien of the state upon the or right to tax the property of said company in accordance with the provisions of the charter of said company approved February 10th, 1851, shall ever be released, suspended, modified, altered, remitted or in any way or manner diminished or impaired by legislative or other authority; and all moneys derived from said company after the payment of the state debt shall be appropriated and set apart for the payment of the ordinary expenses of the state government and for no other purpose whatever."⁴ Despite the opposition in the Convention this amendment was carried by a larger popular majority than the Constitution or any other separate section and even in the counties which would have profited by its repeal the vote was heavily in favor of the Amendment. By this action of the Constitutional Convention and the people the charter tax of the Il-

1 Debates of the Constitutional Convention, 1869, p. 1255

2 Ibid., March 14th, 1870, pp. 1200 ff

3 Ibid., p. 1597

4 Ibid., pp 1619, 1620; 5. Ibid. p

66
lincois Central Railroad Company is made a contract irrevocable or unalterable except with the consent of the stockholders of the company and a constitutional amendment approved by a majority of the voters; or through the decision of the State or Federal Supreme Court, whichever has higher jurisdiction in the particular points. Any possibility or temptation to influence the Legislature is removed.

From 1870 to 1907 the history of the charter tax is little more than a statement of semi-annual payments into the state treasury. The cases of *Gilkerson vs Brown*¹, *I.C.R.R. vs Irwin*², *Decatur vs I.C.R.R.*³ settled certain disputed questions relating to the obligations and privileges of the company, but these decisions in themselves were unimportant. Otherwise these thirty five years are uneventful.

In 1907 Governor Deneen commenced his investigation of the account^s of the company and in 1907 the Attorney General instituted suit against the company for nearly fifteen million dollars of back taxes and for a general readjustment of the method of accounting applied to the^{receipts of the} charter lines.~~ef-the~~ In that year the suit was dismissed by the Supreme Court on technical grounds and then commenced in the Circuit Court of La Salle County. The general story of the suit, however, belongs to Part I and the reader is referred to Chapter V for a full discussion of the points at issue and the history of the charges against the company.

Having reviewed the history of the charter tax we are now in a position to see what modifications^{and explanations} of the original charter have been made by the courts. Prior to the Back Tax Suit of 1907 the question of what receipts are subject to the special tax has not been taken up in the courts and the only^{questions} ~~clauses~~ definitely decided relate to the valuation of the railroad and its exemption from local taxation.

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- 1 *Gilkerson vs Brown*, 61 Ill. 487, decided 1871
 - 2 *I.C.R.R. vs Irwin*, 72 Ill. 452, decided 1874
 - 3 *I.C.R.R. vs. Decatur* 126 Ill. 92
I.C.R.R. vs. City of Decatur, 154 Ill. 173
I.C.R.R. vs Decatur, 147 U.S.

As referred to on page 56 the Auditor of State brought suit in 1857 to determine what was the equitable valuation of the railroad's property. The charter provides for a tax on "all the property and as-¹sets of every name, kind and description belonging to said corporation!" In 1859 the Auditor listed its property at \$4,942,000, while Auditor Dubois placed its valuation at \$13,000.² The cost of the property was \$26,568,017.61.³ The railroad further contended that seven per cent of its gross earnings was a maximum charge.⁴ The decision of the Supreme Court was made at the November Term, 1861, by the Chief Justice Sidney Breese. The judgment was in favor of the railroad and the valuation of its property was placed at \$4,942,000.⁵ The dicta of the court may be summed up as follows:-

(1) For purposes of taxation property should be assessed at its present value and not at its prospective value.

(2) In assessing the value of the railroad for purposes of taxation the inquiry should be what is the property worth to be used for the purposes for which it was designed, and not for any other purposes to which it may be applied.

(3) In such a case, if the property is devoted to the use for which it is designed and is in a condition to produce its maximum income one very important element for ascertaining its present value is the amount of its net profits.

(4) This, however, should not be the absolute standard of value. There should be taken into connection with it the inquiry what a prudent man would give for the property as a permanent investment with a view to obtaining a net income. ⁶

Inferentially the court upheld the further dicta, established in the lower court, that the valuation of the Central should correspond to the

¹ Section 22, Charter.

² Special Report, Auditor of State, January 30th, 1871.

³ Appendix, page

⁴ Spennill Report, Auditor of State, December 1st, 1858.

⁵ I.C.R.R. vs. Illinois., 64.

⁶ Ibid.

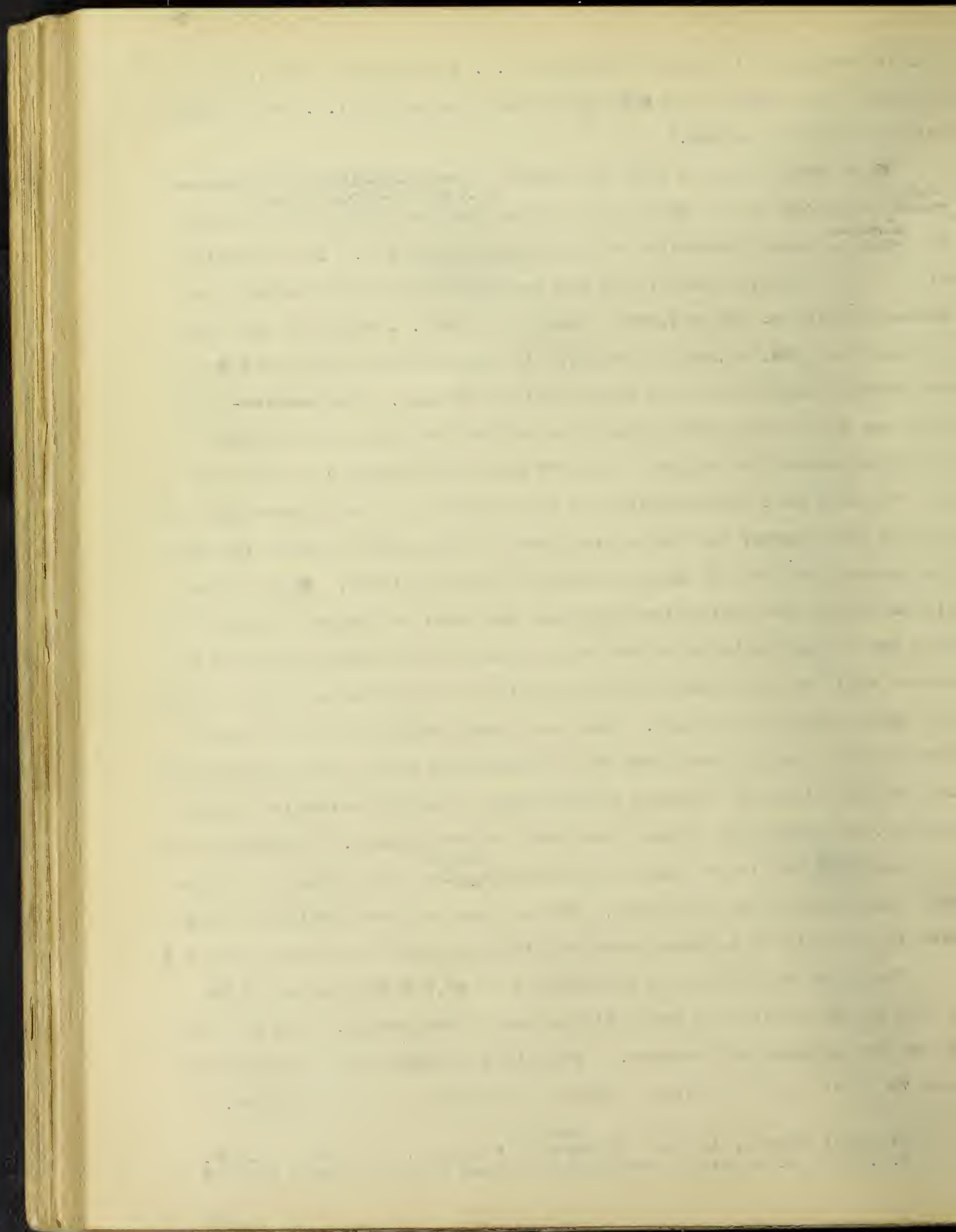
[The page contains extremely faint, illegible text, likely bleed-through from the reverse side. The text is organized into several paragraphs and appears to be a formal document or letter.]

taxable valuation of other railroads, i.e. if the other roads, on the average, were assessed at 60% of their true value the I.C. should likewise be assessed at 60%.¹

While many changes have been made in the principles advanced by ~~other~~ ^{later} decisions of the state and federal Supreme Courts, ^{relating to this point} nevertheless the ~~case~~ ^{decision} is sound economics and presumably sound law. In the application of the ~~idea~~, however, the Supreme Court laid itself liable to ~~severe~~ criticism. \$4,952,000 valuation for 705.5 miles of main line costing over \$26,000,000 is absurd. In choosing the years 1857-60 as determining years the court made a serious mistake. The ~~earnings~~ railroad was just constructed; the gross and net earnings had been materially reduced by the panic of 1857 and crop failures; traffic was not yet at a mark corresponding to the resources of the surrounding territory; the company was recovering from a stock market depression which had greatly reduced the market value of its securities. Under these circumstances the capitalized earnings and even the market value of the road was considerably under the true value of the property and the promoters would not have been willing to sell the property at anywhere near the figure set by the court. That the other railroads of the state were assessed below their true worth should not affect the valuation of the Central since the charter provided for a special valuation by the Auditor, presumably to escape just such undervaluation. Therefore, the assessment of the latter must be regarded as ^{nearer} the true valuation of the road than that set by the court. If the case had been decided in 1865-1870 it is entirely probable that the Auditor would have been sustained.²

The state tax levied on a valuation of \$4,952,000 was under 2% of the gross receipts of the railroad and, consequently, that per cent became the minimum and maximum. From 1859 to 18905 the railroad has paid 7% of its gross receipts without a valuation of its property.

1 Biennial Report, Auditor of Public Accounts, December 1, 1858.
2 i.e. the net earnings were several times what they were in 1857

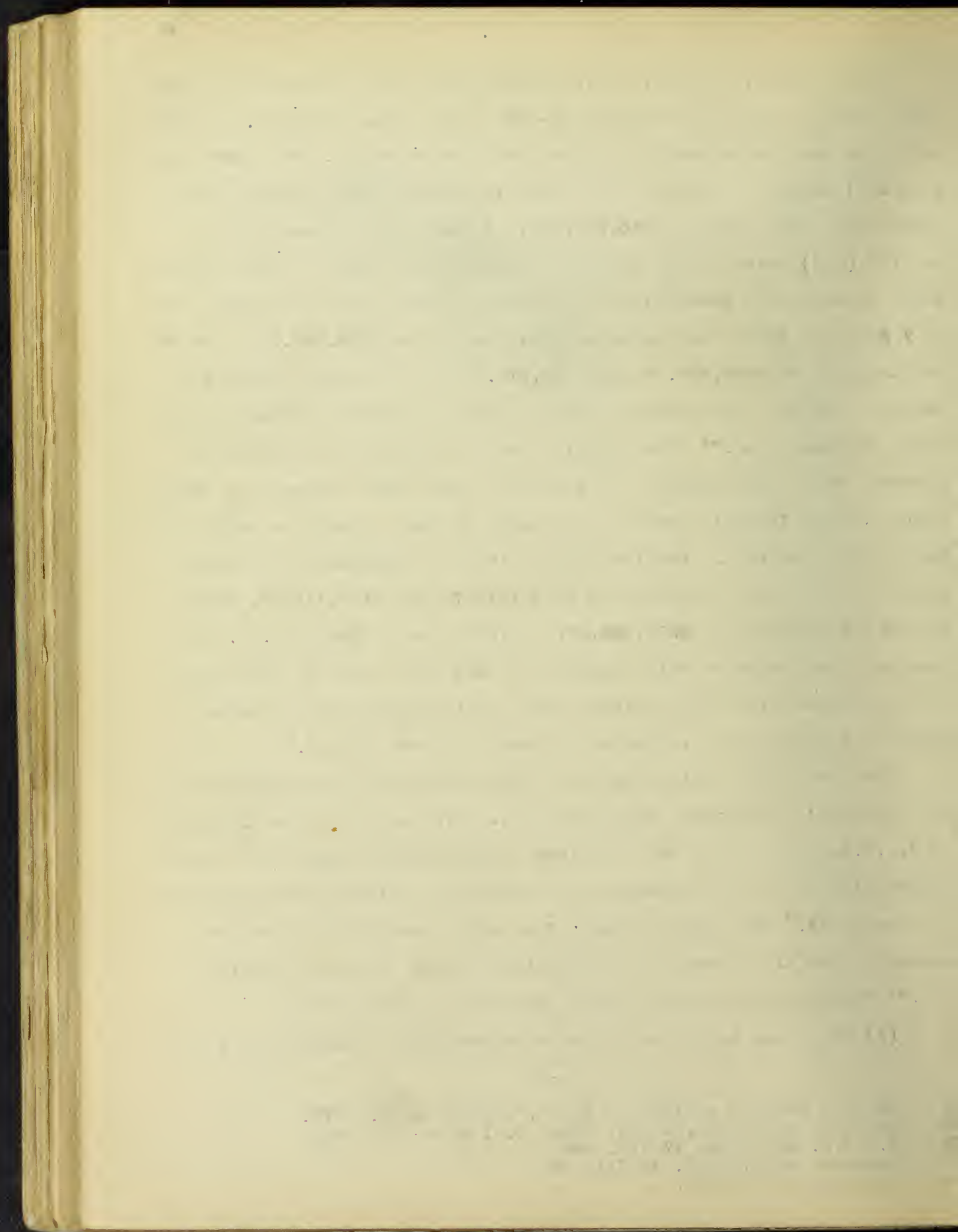


On the whole, however, it is probable that the assessment of state taxes would seldom have equalled the 2% of the gross receipts, due primarily to the low valuation of other railroad property. "In 1869 there were 3001 miles of railroad other than Illinois Central assessed in the state with a tax value of \$16,389,980. Assume the actual value of the 709 (sic) miles of the Illinois Central to be equal to the assessed value of the other 3001 miles of railroad of the state and a state tax of 75% on the \$100 value assessed would amount to \$122,924.85. The 2% tax amounted to \$132,838.08 being \$9,913.23 more than the tax would amount to on the value equal to that of all the other railroads in the state for said year."¹ The question is now of merely historical importance since the reduction of strictly state taxes had made it impossible for the Illinois Central assessment on such a basis to equal the 2% of gross receipts. For instance in 1905 the assessment for state purposes on a total valuation of \$154,111,870 was \$154,111.87, while the 2% tax amounted to \$300,066.62, a difference of \$145,954.75. In that year the assessed value amounted to 60% more than the total cost of the charter lines and equipment and considerably over the market value of the property, including valuation of real estate."²

The next point decided by the courts related to the exemption of the railroad's property. The cases of I.C.R.R. vs McLean and Neustadt vs I.C.R.R., decided in 1855 and 1863 respectively, settled the constitutionality of the tax exemption and also gave a liberal interpretation to section 22.³ The charter reads: "the said corporation is hereby exempted from all taxation of every kind, except as herein provided for."⁴ The important points settled by these decisions are:

- (1) "The case before us is not an exemption or immunity from the

- 1 Special Report, Auditor of State, January 30th, 1871.
- 2 Brief of the State, March, 1908, p. 156, section 68.
- 3 I.C.R.R. vs McLean 17 Ill. 296
- Neustadt vs I.C.R.R. 31 Ill. 485
- 4 Charter, Section 22.



payment of taxes", but is a commutation of one tax into another.¹

(2) "The exempting of the donated lands may be regarded as an exemption of the public property until its sale or the performance of the conditions which will release the lien of the state."¹

(3) "The other property of the company falls within the power of the stateto be assessed by such rule as the legislature may adopt and in this instance having adopted for taxing this corporation.....it is for the legislature and not this court to determine the manner in which this shall be done."¹

(4) "This being a contract between the state and the corporation no city or town authority can impose a tax for municipal purposes on the property of that company which maybe within its limits."²

(5) "the act of the legislature in these provisions is constitutional."²

Four other cases relating to the exemption feature have been decided by the Supreme Court and there has been a steady tendency to limit the extent of exemption.

In *Gilkerson vs Brown*, decided in 1871, the court held that grain warehouses built by private parties on the right of way of the Illinois Central leased to such private-property parties are subject to taxation, since they do not belong to the Illinois Central Railroad. "There is no such exemption in terms nor is it to be made by legal intendment".³

Of greater importance is *I.C.R.R. vs Ivin*, decided in 1874. The decision is in regard to injunction of the railroad against the city of Cairo restraining it from taxing a certain ferry boat used for transfer purposes between Cairo and Columbus, Ky. In making its decision the court uses very explicit language: "The object of creating ...a corporation was to construct and operate a railroad through the central part

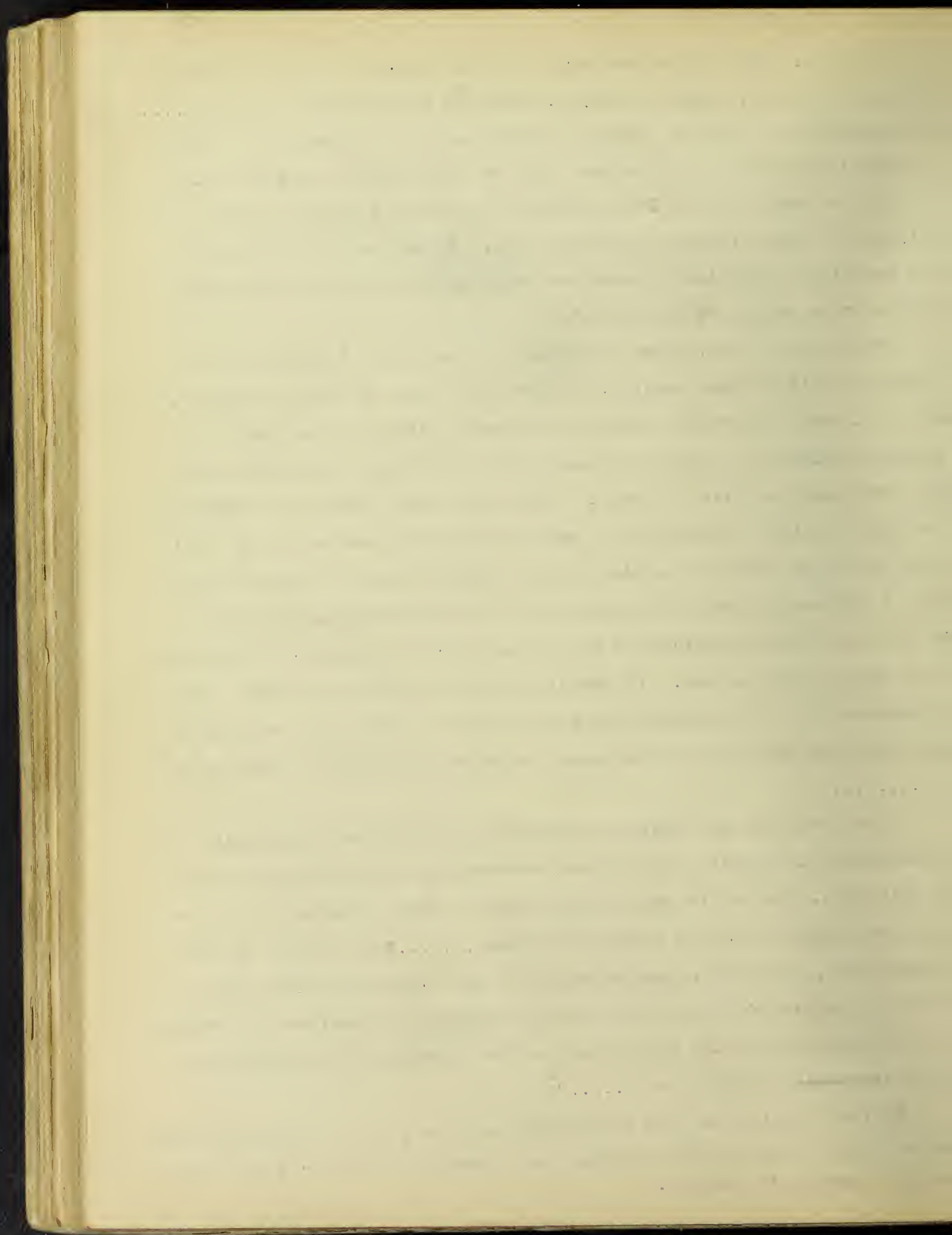
1 *I.C.R.R. vs. McLean*, 17 Ill. 296 ff
 2 *Neustadt vs I.C.R.R.* 31 Ill. 486
 3 *Gilkerson vs Brown*, 61 Ill 487.

of the state. The powers expressly conferred upon it were to "survey, locate, construct, complete, alter, maintain and operate a railroad.... No authority is given to construct other lines of railway or to engage in carrying by water or otherwise than by the lines of railway authorized to be constructed. Every section of the act relates to the accomplishment of this purpose and none other. It was to aid in it that the munificent donation of lands was made by the state and the exemption granted by the 22nd section"

"The taxes, then, from the payment of which the Legislature intended to relieve apparently could have been only the taxes which it, as a railroad corporation would be otherwise liable to pay upon its property acquired in the prosecution of its business in constructing, and operating this line of road. None other could have been contemplated for the plain reason that it was not intended that any other business should be engaged in. And it is a familiar rule of construction that a corporation has such powers only as are specifically granted by its act of incorporation or are necessary for the purpose of carrying into effect those powers. It surely needs no argument to prove that steamboats are not railroad property or that the right of carrying by rail does not include as a necessary incident the right to carry by water....."

It may be that the business prosperity of appellant is greatly promoted and the public convenience subserved by its ownership and use of this boat. So too it might be by lines of stage coaches or by constructing canals or other lines of railway Yet it could not be claimed that, therefore, such enterprises are within the powers conferred by appellant's charter or that the property so employed is within the contemplation of the Legislature in the exemption of the section under discussion consideration....."1

In its decision the court held that the ferry boat in question was not property of the railroad within the contemplation of the 22nd section of appellant's charter.



The effect of this decision was to limit the property of the rail road exempt from taxation, and inferentially the gross receipts subject to the seven per cent payment, to such as actually belonged to the operation of the original 705.5 miles of charter line. Acquired, leased or constructed roads not operated under the charter of 1851 would not be exempt from ordinary taxation.¹

A further restriction of the charter exemption is found in the case of I.C.R.R. vs Decatur. The railroad appealed from the assessment of a special tax or assessment for street paving in the city of Decatur and a decision was rendered, first by the state Supreme Court and then by the federal Supreme Court.² The line of reasoning adopted by the ^{er} last tribunal was that assessments for improvements such as street paving were not ordinary taxes since they inured directly to the benefit of contributing parties and were levied in proportion to benefits. In the words of that body: "The provisions in section 22 of the act incorporating the Illinois Central R.R. Co. exempting it from taxes do not exempt it from the payment of municipal assessments upon its land within the municipality in the state laid for the purpose of grading and paving a street therein.....andan exemption from taxation is to be taken as an exemption from the burden of ordinary taxation and does not relieve from the obligation to pay special assessments imposed to pay the cost of local improvements and charged upon contingent property upon the theory that it is to be benefited thereby".³

The Supreme Court did not decide on the question of constitutionality of the charter since that was not brought before it nor did it have direct jurisdiction superior to the state court.

In a somewhat later state case the Supreme Court of Illinois confirmed its dicta in the Decatur ruling.⁴ This was in I.C.R.R. vs Mattoon.^{n.}

- 1 I.C.R.R. vs Irwin, 72 Ill. 455, 454
 2 I.C.R.R. vs Decatur 126 Ill. 92
 I.C.R.R. vs Decatur 147 U.S. 190
 3 I.C.R.R. vs Decatur 147 U.S. 190
 4 I.C.R.R. vs Mattoon, 141 Ill. 32.

THE HISTORY OF THE
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TO THE PRESENT TIME
IN TWO VOLUMES
BY NATHANIEL BENTLEY
OF THE BOSTON BAR
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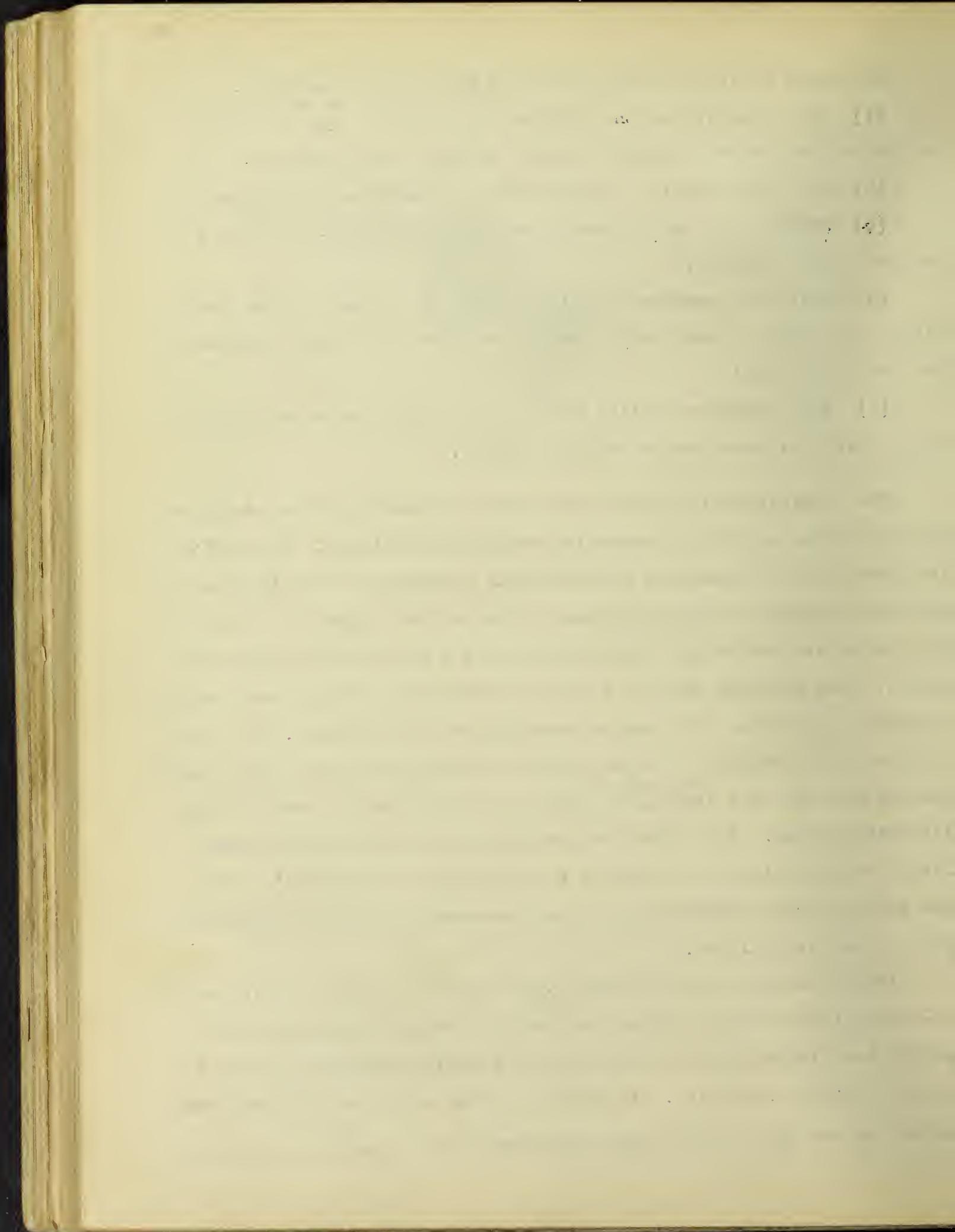
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The legal decisions discussed above may now be summarized:

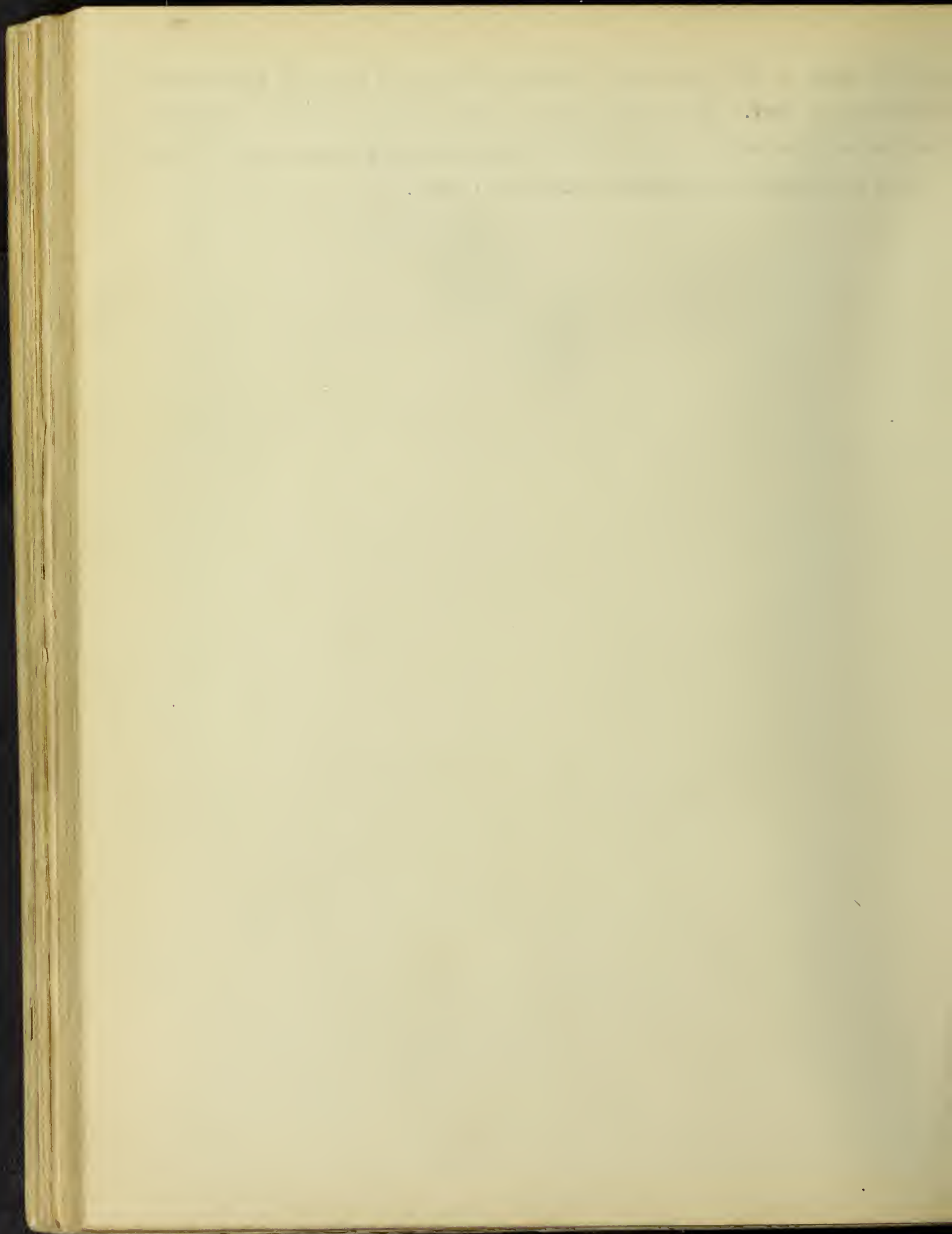
- (1) The valuation of the railroad for purposes of ^{state} taxation is determined by its net earnings and the profit of the business.
- (2) The tax exemption features of the charter are constitutional.
- (3) Property of the railroad covered by the charter is not subject to local taxation.
- (4) Only such property shall be exempt as is used in the operation of the line of road authorized to be constructed and operated by the charter of 1851.
- (5) The exemption applies merely to ordinary taxes and does not include special assessments for betterments.

The administration of the tax under the rulings of the Auditors and the decisions of the courts is comparatively simple. From 1859 to 1905 the railroad submitted a semi-annual statement to the Auditor and Governor showing the gross receipts earned on the charter line for the preceeding six months and then paid seven per cent of the amount so stated. Its property was not listed for taxation and the state made no attempt to go behind the figures submitted by the railroad. By the rulings of the Supreme Court in Decatur and Neustadt cases local taxing authorities have not listed ^{for taxation} the property of the charter lines of the Illinois Central. Since 1905 the property of the railroad has been listed with the Auditor of Public Accounts and the Governor's office has made an annual examination of the statement of gross receipts subject to the special tax.

In the history of the charter tax one factor stands out in relief to -----the close relation of the tax and the federal land grant. Of hardly less importance is the essentially public character of the Illinois Central enterprise. At times it seems as if the private company is merely the agent of the state government and is paying certain spe-



gified sums to the latter for carrying on the old Internal Improvement measures of 1837. The third element to be considered is the influence of the charter tax on state finances and the extreme carefulness of the state to retain this valuable source of income.



PART II.

CHAPTER ^{III}
V.

HISTORY OF "THE BACK TAX SUIT" OF 1907 AND NATURE OF
THE CHARGES AGAINST THE COMPANY.

The so-called "Back Tax Suit" instituted by the State of Illinois against the Illinois Central Railroad Company is one of the most important, as well as one of the most spectacular incidents of modern railway history. The magnitude of the amount involved----the state is suing for over fifteen millions of dollars----is sufficient to attract attention. Of deeper interest, however, are the legal, accounting and economic principles of the case: principles which have direct bearing not only on the particular problem of the charter tax, but also on the broader questions of railway rate making and government supervision of public service corporations.

The action of Governor Den/een in bringing before the courts for settlement the many points of dispute between the state and the company is the logical and necessary result of two different influences; (a) the expansion of the original lines of the Illinois Central and the accompanying complexity of organization; (b) the development of the principles and practices of scientific accounting in recent years in a manner which makes possible a scientific adjustment of gross receipts between charter and non-charter parts of the System.

In Chapter I of Part I there was given a brief sketch of the history and organization of the Illinois Central System and it was shown how ^{the mileage} ~~the~~ had expanded from slightly over seventy hundred miles of line to sixty three hundred miles and how the organization of the company had changed from that of a simple operating corporation to a

CHAPTER I

THE HISTORY OF THE
CITY OF BOSTON

From the first settlement of the
English in 1630 to the present
time. The city of Boston was
founded by a group of Puritan
settlers who came from
England in 1630. They were
led by John Winthrop, who
gave the city its name. The
city grew rapidly and became
one of the most important
centers of commerce and
industry in the New England
region. It was the site of the
Boston Tea Party in 1773, a
key event in the American
Revolution. The city was
destroyed by a fire in 1872, but
was rebuilt and emerged as a
modern metropolis. Today, Boston
is a major center of finance,
education, and culture in the
United States.

highly complex arrangement of holding ~~company~~^{and} operating companies ~~with~~ extensive inter-system holding of both debt and stock securities. The railroad company was chartered "authorized and empowered toconstruct....maintain and operate a railroad....." from Chicago to O'Fallon and from Centralia to E. Dubuque,¹ but acting under the general rail-ways laws of Illinois and other states it has acquired some fifty seven hundred miles of other line,² which its original charter did not authorize it to do. By the rulings of the various Auditors of Public Accounts and Governors of Illinois and by the inferential decision of the Supreme Court in I.C.R.R. vs Irvin the gross earnings subject to the seven per cent tax were limited to such as were received from the operation of the 707.5 miles of charter lines;³ all other receipts of the Illinois Central Railroad Company were not subjected to this payment. Thus, for the purposes of the seven per cent tax the System is divided into two parts; (1) the charter mileage; (2) all other parts of the railroad.

However, the operations of the Illinois Central System---traffic, accounting and operating---are those of a single unit and the division of receipts and expenses between sixteen distinct subsidiary corporations, which^{number} for purposes of taxation is increased to over forty, is purely arbitrary and hardly logical. In 1907 seventy millions dollars of gross receipts, earned on six thousand miles of line of varying degrees of traffic density, had to be so distributed. Part of the receipts came from business of a strictly local character, i.e. originating and terminating on the same subsidiary road or accounting division. In such instances there could be no question as to the distribution of the proceeds. Another and much larger portion of the earnings was derived from System traffic which passed over more than one of the subsidiary roads. These receipts had to be divided among the differ-

1 Charter, Section 2.

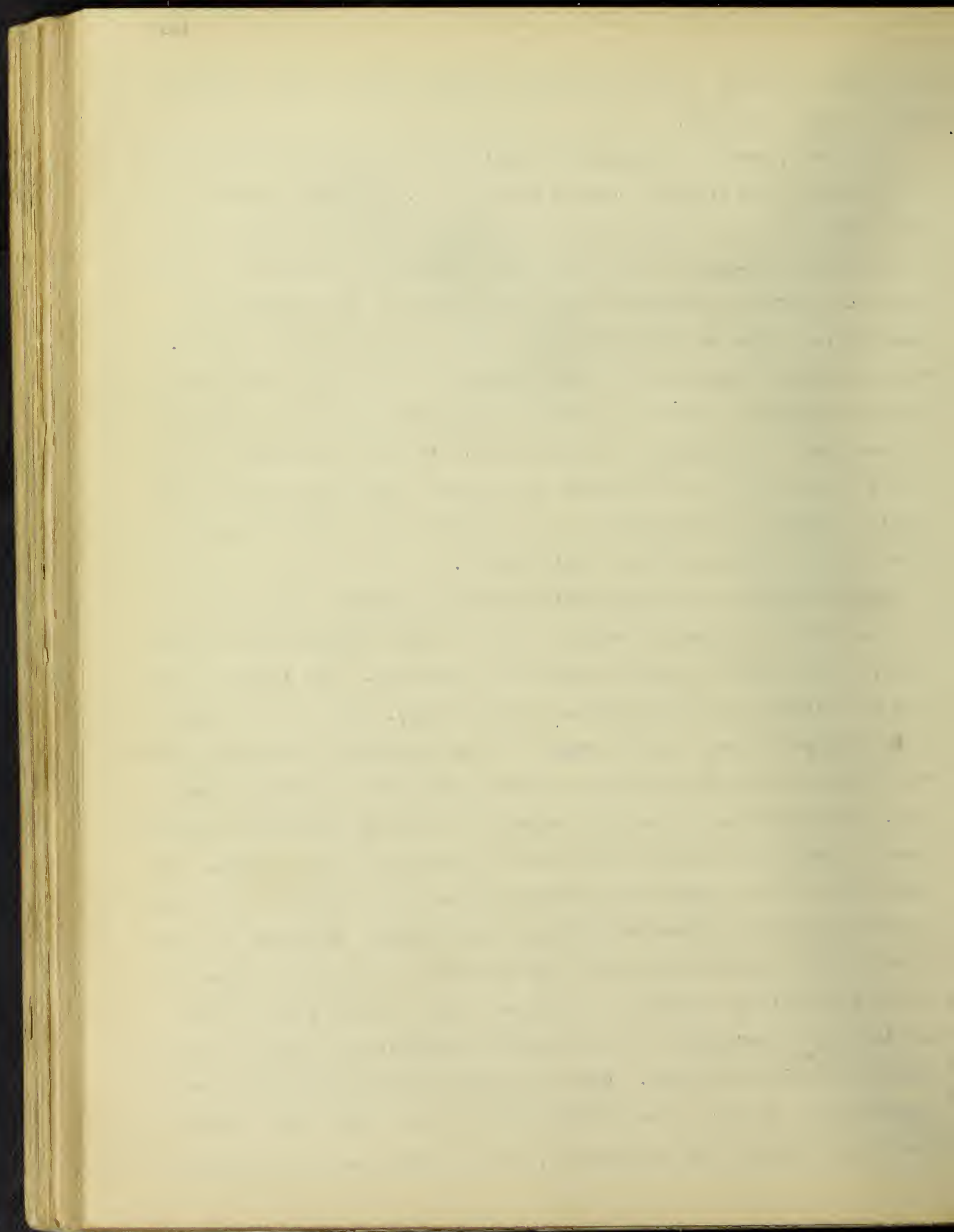
2 General Railway Act of 1855; Brief of the State, Section 19, p.46

3 I.C.R.R. vs Irvin, 72 Ill 454, 455; cf. pp. 66-68, Chap. II.

ent lines according to some consistent method, which at best would be more or less arbitrary.

Moreover, with the increasing complexity of the legal organization of the System the Illinois Central Railroad Co. received receipts which came neither from the operation of the charter lines nor from the lease of subsidiary roads, but were due to the holding of securities of other lines for purposes of control and to miscellaneous undertakings not commonly practiced by railroads at the time the charter was granted. Some of the most important of these items are income from investments, hire of equipment, charges for express business, interstate transfer and operation of sleeping and dining cars. As these earnings entered into the accounts of the railroad there arose a question whether they should or should not be subject to the charter tax, even though received by the Illinois Central Railroad Co.

The confusion naturally arising from such complex conditions was intensified by the almost complete absence, until comparatively recent times, of what may be termed scientific accounting. The Illinois Central has always had a good system of accounting, based very largely on English practices, and the reports of the company, in the main, have been fairly clear and reasonably correct according to existing standards. Nevertheless, the methods employed in distributing gross receipts between subsidiary corporations cannot be regarded as scientific. At times they are not only non-scientific but actually incorrect and even inconsistent with accepted practices of accounting. Although the management of the railroad has been conservative, as a general rule, it is not particularly subject to criticism. The trouble lies not with the Accounting Department of the Illinois Central, but with the general system of railway accounts. Like too many business operations they are haphazard and adapted to meet conditions as they arise. In the past this lack of system was unavoidable, but in recent years the entire

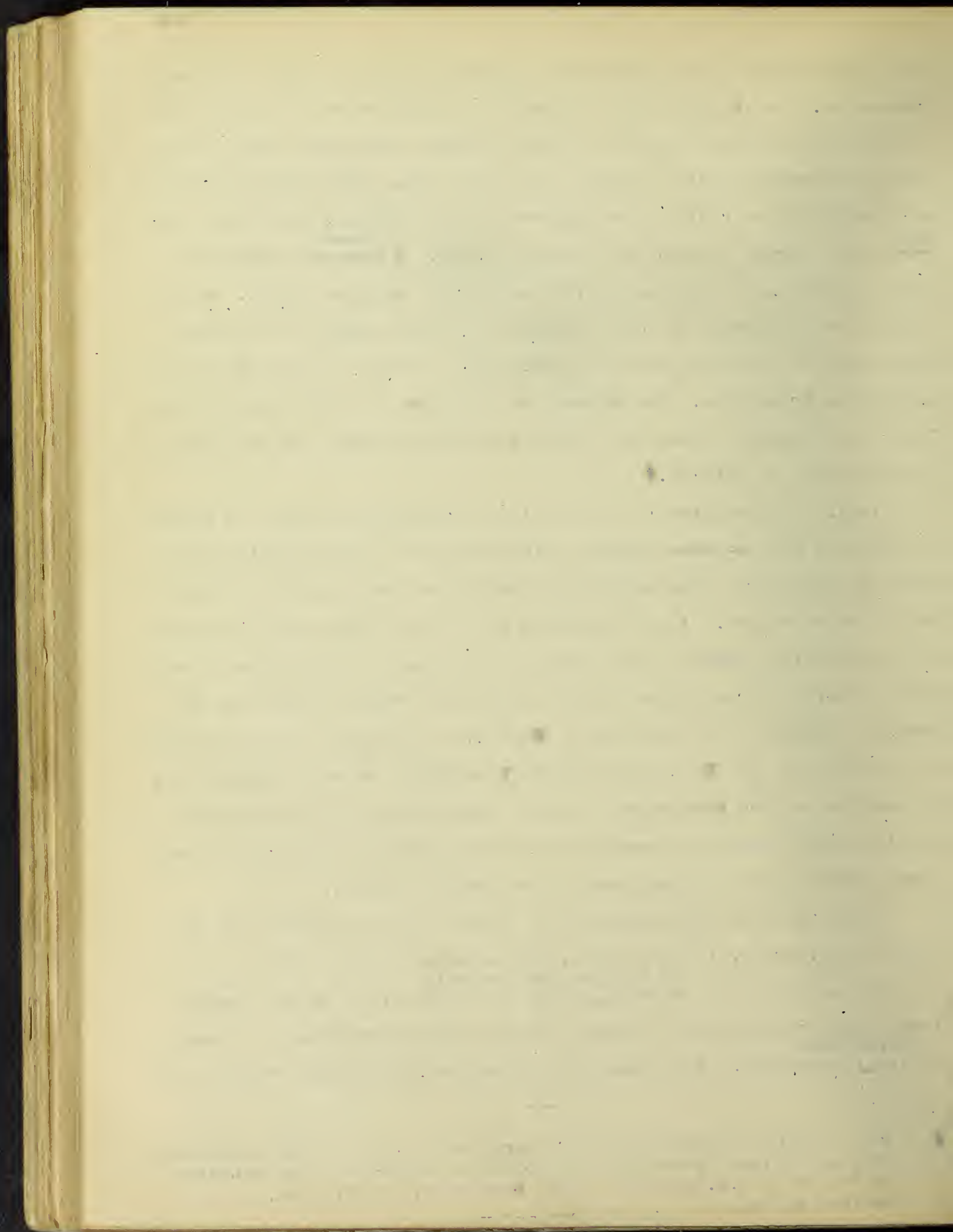


field of railroad organization and management has become more and more systematic. The Engineering Departments of progressive railroads are to-day governed by scientific, almost academic principles which would have been impracticable a decade and a half ago. Train operations have been subjected to rigid rules and even the organization of the roads ~~has~~ ^{has} been changed to meet the new conditions. A ~~good~~ ^{good} example of this systemizing of operations is found in the Harriman Lines. Accounting is now following in the footsteps of engineering and the fiscal operations of the road are being based more and more on fundamental and underlying principles. The Hepburn Act of 1906 and the action of the Interstate Commerce Commission under that law are important evidences of the new order of affairs.*

Thus, the development of scientific accounting has made it possible to effect a more ~~ex-act~~ accurate distribution of accountings between main and subsidiary corporations than would have been possible twenty or even five years ago. It is not going too far to state that the present suit is merely a phase of the general readjustment of relations between public service corporations and the government which is shown by the physical valuation of railroads in Wisconsin, Michigan and other states; the creation of the Wisconsin and New York Public Service Commissions; the passage of the Hepburn Act and the standardization of accounts by the Interstate Commerce Commission; and the general agitation for physical valuation of the railroads of the entire country.

Neglecting any considerations of fraud in the adjustment of the charter tax, which, if they exist, are matters for the courts to settle, the action of the Governor ^{in instituting the suit} seems to be justified by the complex legal organization of the company and the recent improvement in public service ^{corporation} accounting. An examination of the methods adopted by the com-

* For a fuller discussion of the application of scientific accounting to railway operations the reader is referred to an article by Professor M.H. Robinson of the University of Illinois, in the Railway Age Gazette for October and November.



pany in pre-rating gross receipts between charter and non charter lines emphasizes the necessity of a thorough readjustment of the practice in accordance with recent developments of the science of accounting.

So far as any common principle underlies the methods now in vogue it is the basing of pro rates on estimated cost of service. Historically, the pro-rates have ~~the~~ ^{arise in two ways} origin. Roads that formerly were independent of the Central had, prior to consolidation, considerable interchange of traffic with the other lines of the present system and ordinary through rates with inter-line pro-rates or divisions were in existence. When a road was taken over by the Central these inter-line pro-rates usually were retained and the system receipts distributed in accordance with their provisions. A very large proportion of the existing pro-rates are based on historical considerations. Where new roads were constructed by the Central or it was found necessary to make a readjustment of the old divisions other methods had to be adopted. As a general rule the pro-rates are similar to what may be found on other roads or in inter-line agreements between the Central and foreign systems. In many cases, however, the distribution is purely arbitrary and seems to be based on no logical grounds.

In all instances the divisions are made according to individual tariffs and the receipts are distributed from way bill statements. For example the first class rate from Chicago to New Orleans is \$1.10 per cwt. The standing pro-rate on that ~~provision~~ ^{part} of the Chicago-New Orleans tariff is: 2¢ deduction for bridge arbitrary at Cairo; 38% of the remainder to lines North of Cairo; 62% to lines south of Cairo ~~(1st class local rate from New Orleans to Cairo, viz.)~~ On a shipment of 100 lbs. 2¢ is credited to Interstate transfer; 45¢ to the I.C.R.R.; 58¢ to the C.St.L.&N.O.¹

1 Brief of the State, March Term, 1908, p. 192-3, section 113.

Without attempting a complete classification of the various methods in use the more important are given below:-¹

- (1) Local rate on one division and proportion or basing rate on the other division, e.g. Chicago to New Orleans, 1st class.
- (2) Division in accordance with arbitrary per centages assigned to each part of the road, e.g. Chicago to Grenada 36% to charter lines and 64% to non charter lines.
- (3) Division in proportion to actual mileage.
- (4) Division in proportion to constructive mileage and actual mileage, e.g. Chicago to Dubuque 181.6 mi., Dubuque to Waterloo actual mileage 93, constructive mileage 100 miles.
- (5) Minimum allowances to certain roads, e.g. 20% allowed to South Chicago regardless of distance.
- (6) Arbitrary additions to receipts of certain roads, e.g. 10% to 30% of receipts from Iowa-Illinois-Shipwreck Illinois portion of Illinois-Iowa shipments added to lines west of Mississippi river.
- (7) Arbitrary deductions per passenger or ton, e.g. 2¢ per ton and 25¢ per passenger for Cairo Bridge.

In his special message to the Legislature of January 10th, 1907, Governor Deneen characterizes the present system as follows: "It may be stated with substantial accuracy that in dividing earnings between the charter lines and the numerous branch and subsidiary lines, according to the methods now in vogue, there is no uniformity, unless it be that in all cases the divisions are uniformly made in such a way as to deprive the charter lines of their just and proper proportion of the earnings".²

And again: "The rules for division of earnings are subject to arbitrary alterations from time to time, and at present in force, are, in my opinion, unjust, inequitable and illegal."³

"A few concrete examples will show the truth of the last paragraph."⁴ The freight charges on tonnage of coal hauled from Heroin, Illinois, to Dubuque, Iowa, during October, 1905, amounted to \$4,850.02. This coal traversed 400 miles of the charter lines and 13 miles of the branch lines. In the division of earnings,

¹ Brief of the State, March, 1908, pp. 191 to 206.

² Special Message, January 10th, 1907, p. 8.

³ Ibid.

⁴ Ibid.

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211
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The charter lines were allotted.....1.....\$2,732.30
 The branch lines..... 2,317.72

Upon the basis of mileage rate,

The charter lines should have been allotted 4,704.72
 The branch lines..... 147.50¹

The following tabular statement of pro rates between certain important points further illustrates the Governor's statement:

Chicago	CHARTER LINES		NON-CHARTER LINES	
	Pro-Rate	Mileage	Pro-rate	Mileage
New Orleans	38%	40%	62%	60%
Jackson, Tenn.	45%	77%	55%	23%
Jackson, Miss.	34%	50%	66%	50%
Grenada, Miss.	36%	59%	64%	41%
Martin, Tenn.	53%	87%	47%	13%
Dubuque, Ia.	55%	99%	45%	1%
Julien, Ia.	55%	95%	45%	5%
Waterloo, Ia.	45%	66%	55%	34% 2

In addition to great variations in the distribution of gross receipts between different parts of the System the state claims that a number of other abuses ^{have} arisen. The basis of the claim is that a very considerable proportion of the gross receipts of the Illinois Central R.R. Co. was not included in the statement of earnings subject to the charter tax. In the Bill for Accounting discussed later the amounts due from these various items is as important as the alleged mal-adjustment of receipts between charter and non-charter lines.

As stated in chapter II, prior to 1905 no attempt was made by the state to investigate the methods of accounting pursued by the railroad. There seems to be little doubt that former executives were at times neglectful and, naturally, many abuses arose which constant supervision would have prevented. However, as outlined above, a thorough investigation and readjustment of accounts was not possible until comparatively recent time. Considering the laxity that often existed at

1 Special Message of the Governor, January 10th, 1907, p. 9.
 2 ~~Brief of the State~~, March Term, 1908, pp. 192-206.

Bill of Com for Accounting
 * *Later investigation shows that a thorough examination of the accounts of the Railroad was made in 1883.*

Springfield, the strong political influence of the corporation and the great temptation to minimize the gross receipts subject to taxation the railroad, ^{on the whole,} seems to have pursued ^{equitable} ~~an~~ just policy. With few exceptions the points at issue between it and the state, as explained later, are those over which honest difference of opinion exists and it is unreasonable to have expected the railroad, without pressure from the state, to have subjected to the special tax receipts about which there was a question. That actual fraud was used seems equally unlikely. However, both of these questions are ones which the courts must decide and any opinion at present is not justified. It must be said for the company, though, that in the recent suit its officers have afforded the accountants of the state every facility that could have been expected and in many ways helped the investigation where the corporation had a right to question the authority of the state. On the whole, the attitude of the railroad is fairly liberal and while it does not intend to surrender any funds that cannot be proved to belong to the state, it is willing to have the question settled in a way that is just to both parties.¹

One of the earliest ^{acts} of Governor Deneen's first administration was to institute an investigation into the methods of accounting used by the railroad in connection with the charter tax. On December 2nd, 1905 Mr. F. D. Whipp, institute audit clerk in the Governor's office, was directed to make an examination of the books and papers of the General to ascertain "how the total amounts shown in the statements were arrive^d at and whether or not the same were correct."² It soon became apparent that a casual investigation would not suffice, and the firm of Wilkin-son, Reckitt, Williams & Co., certified public accountants of Chicago, was engaged to carry on a more thorough audit. During 1906 \$28,692.68 of the Governor's emergency fund was expended in the investigation and at the commencement of the session of 1907-1908 of the General Assembly the Governor sent a special message asking for an emergency appropri-ation of \$100,000.00 for the Governor and \$50,000.00 for the Attorney

¹ Oral plea of Judge Dickinson, La Salle Circuit Court, Oct 11-16, 1908
H. 228-235

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General.¹ The request was granted and the money has been expended in further investigation and in the trial.²

The first legal action was taken at the February term of the Supreme Court in 1907 when the Attorney General brought in a bill for accounting against the Illinois Central R.R. Co.,³ under the provisions of the Constitution of 1870 which permits the Supreme Court taking original jurisdiction in cases of revenue and mandamus.⁴ The case was heard at the April term on the technical point of jurisdiction. The railroad claimed that the gross receipts from the charter tax were not revenue in the meaning of the Constitution, while the Attorney General held that they were.⁵ The Court, acting under the discretionary powers conferred by the Constitution, refused to take original jurisdiction in the suit and remanded the case to one of the lower courts.⁶

Suit was then brought in the Circuit Court of La Salle County, sitting in Chancery, at Ottawa, and the bill of complaint of the state was presented at the June, 1907, term.⁷ The case was heard at the June and October terms, at which times the company presented its defenses.⁸ The state then secured permission to withdraw its bill for revision and the amended bill was presented at the March, 1908, term.⁹

The previous discussion^{has} shown many of the points at dispute between the state and company, but for sake of clearness the amended bill of the Attorney General as presented at the March, 1908, term of the La Salle County Court may be summarized:

After a presentation of documents relating to the chartering of the company, a statement of the history of its expansion and the submission of the important leases of the Dubuque & Sioux City and Chicago St. Louis and New Orleans Lines, the ^{Bill} ~~brief~~ makes the following charges

- 1 Special Message of the Governor, January 10th, 1907, p. 6.
- 2 Laws of Illinois, 1907, pp 17, 35. (March 19, 1907)
- 3 Brief of the State, February Term Supreme Court, 1907.
- 4 Constitution of 1870,
- 5 Briefs of the State and Railroad (Copies of I.C.R.R. office)
- 6 April Term, Illinois Supreme Court. do
- 7 Brief of the State, June, 1907, Term.
- 8 Briefs of the Railroad, Copies in I.C.R.R. Office

against the company and demands certain remedies:

- (1) From 1879 to 1907 the railroad company has neglected to list its property with the Asse Auditor of Public accounts as provided for in its charter.¹
- (2) It is the duty of the railroad to furnish to the governor an accurate statement of its gross receipts, but that "each and every statementwas falsely and fraudulently made and was and is untrue and incorrect..."²
- (3) One half of the receipts from the bridge arbitraries over the Cairo and Dubuque bridges should be credited to the charter lines.³
- (4) It was the duty of the railroad to divide receipts between charter and non charter lines⁴ in an equitable manner, which was in proportion to mileage.
- (5) Numerous items involving several million dollars of taxes were not included in the statement of gross receipts.
- (6) The Court is asked to order a complete and thorough examination of all the books and accounts of the corporation relating to the charter tax.⁶
- (7) "If, upon such accounting, it shall appear that the defendant has not fully accounted forthe entire amount which you orator was entitled to receive...."the defendant be required "to pay...whatever balance may be found to be due...."⁷
- (8) Court prescribe "so far as may appear...to be practicable, a just and equitable method of division between the non-charter and the charter lines of the defendant, of the future gross or total proceeds..derived from said non charter lines and charter lines, from passenger, freight and other traffic transported partly over said non-charter lines and partly over said charter lines, and also prescribing a suitable method for the keeping by the defendant of its accounts with respect thereto...."⁸
- (9) "That your orator may have such other and further relief in the premises as equity may require."⁹

From the accounting standpoint.

The two primary points at issue are: (1) What method of accounting shall be adopted for the division of system receipts; (2) what is the definition of the term "gross proceeds or gross receipts".

Bill of Complaint

- 1 Brief of the State, March Term, 1908, pp 152 ff, section 67 ff.
- 2 Ibid. 158 ff., sections 70 ff.
- 3 Ibid., pp 166 ff., Sections 80 ff.
- 4 Ibid., pp 190, Section 110 ff.
- 5 Ibid., pp 206 ff., Section 135 ff.
- 6 Ibid., pp 259 ff, Section 167 ff.
- 7 Ibid., pp. 261, 262
- 8 Ibid., pp. 262, 263.
- 9 Ibid., p. 263.

The first part of the book is devoted to a general introduction to the subject of the history of the English language. It discusses the various factors which have influenced the development of the language, and the changes which have taken place in its vocabulary, grammar, and pronunciation.

The second part of the book is devoted to a detailed study of the history of the English language from the time of its first appearance in the British Isles to the present day. It discusses the various dialects which have developed, and the changes which have taken place in the language over the centuries.

The third part of the book is devoted to a study of the history of the English language in the United States. It discusses the various influences which have shaped the American English, and the changes which have taken place in the language since it was first brought to the New World.

The fourth part of the book is devoted to a study of the history of the English language in the Indian subcontinent. It discusses the various influences which have shaped the Indian English, and the changes which have taken place in the language since it was first brought to the East.

The fifth part of the book is devoted to a study of the history of the English language in Africa. It discusses the various influences which have shaped the African English, and the changes which have taken place in the language since it was first brought to the continent.

The sixth part of the book is devoted to a study of the history of the English language in the Pacific. It discusses the various influences which have shaped the Pacific English, and the changes which have taken place in the language since it was first brought to the islands.

The seventh part of the book is devoted to a study of the history of the English language in the Far East. It discusses the various influences which have shaped the Far Eastern English, and the changes which have taken place in the language since it was first brought to the region.

CHAPTER IV.

LEGAL PRINCIPLES INVOLVED IN THE SUIT.

From the legal standpoint the suit of the State of Illinois against the Illinois Central Railroad Company bids fair to become one of the most celebrated cases in American jurisprudence. In only one other case---the so-called *Louis* fine of the Standard Oil Company---has a state or federal officer brought suit against a private corporation for a greater sum than that involved in this case and, perhaps, even that amount may be surpassed before the ultimate decision is reached.

In complexity of accounting and legal points involved the Illinois Central suit is not outdone by that against the Oil Trust, while this complexity and the magnitude of the amounts claimed by the State make the final decision a matter of future history. As Judge Dickinson in his argument at Ottawa humorously states: "Your honor recalls that passage in Macaulay, where he spoke in his review of Ranke's History of the Popes of the enduring nature of the Catholic church, and said that it would stand so long that at some future date while it was still flourishing a traveler from New Zealand might be standing upon the broken arch of London bridge, looking upon the ruins of St. Paul. Before these accounts shall be ended, if we go into all the field into which we are invited, this lawsuit threatens to rival even the longevity of the Catholic church."¹

None are the physical amounts involved or the complex character of the case its most important features. Principles have already been stated by the opposing attorneys which when finally adjudicated by the Supreme Court of the United States--for the case must ultimately reach that body--may have far reaching and even momentous influence upon the

¹ Oral Argument, Oct. 8-10, 1908, p. 8.

economic and political history of both the commonwealth of Illinois and the nation as a whole. What some of these principles are will appear later in the discussion.

As stated in the previous chapter, the suit at the time of this writing, May, 1909, is pending in the Circuit Court of La Salle County. The title is State of Illinois vs. Illinois Central Railroad Company, No. 15,718, and is in the form of a Bill of Accounting against the corporation. The demands of the Bill are for a "complete and full accounting" of all the receipts and operations of the Illinois Central R.R. Co. relating to its charter lines for the period from October 31st 1877 to the date of suit. This involves the examination of the records of every transaction of the defendant referring to receipts over its charter lines, the accounts for which would fill between sixty and seventy large freight cars.

The Amended Bill for Accounting was presented at the March, 1908, term and at the October, 1908, term, the defendant entered a demurrer to the same, as stated by Judge Dickinson "not to create delay, but to get down to the real points upon which there might be a recovery, if there are any such, and then to take issue upon them, and if there is an accounting to be had, to have one that will stand."¹ So far, the argument is upon the demurrer and upon such points as are brought out in the same.

In so far as possible it is the object of the writer to ^{present} ~~avoid~~ *only the important* ~~strictly technical~~ points involved and present only such as are of vital importance in the suit. These are summarized as follows:

- (a) Question of Pleading.
- (b) Technical Statement of Claim; alleged mistake relating to five per cent and seven per cent tax.
- (c) Constitution of 1870 and question of settled accounts.
- (d) Contemporary Construction of Charter.
- (e) Question what are operating revenues of corporation.
- (f) Interstate Commerce.
- (g) Particular items in respect of which accounting is sought.²

1 Oral Argument of Judge Dickinson, Oct. 11-16, 1908, p.5.

2 Ibid. pp. 1-404; Amended Bill of Accounting, filed March, 1908, ⁱⁿ ~~the~~

One of the most important points presented in the argument so far relates to the character of the pleading. Judge Gilbert for the State advanced the argument that the law grant made the Illinois Central was a trust "for the construction and operation of the railroad" and the charter tax is "a trust fund".¹ For that reason the court should be justified in ordering an investigation of the accounts of the railroad even without alleged evidences of fraud, mistake or error. In other words, the court is asked to order a thorough examination of the corporation's records to see that no fraud or error has taken place, not to prove such fraud or error. Naturally, this position would give the State a considerable advantage in the suit. But the plea of the State goes even further in this particular as is shown in the discussion of the item "Contemporary Construction".²

In opposition to this the Company has taken the ground that the case is governed by the ordinary rules of pleading relating to contracts. This would force the State to show evidence of error or fraud in regard to each particular shipment in question. Moreover, the Company places itself in the position of one who has accounted and whose accounts cannot be questioned without good authority.³

This, of course, is a strictly technical legal point, but much of the success of the State depends upon ^{a favorable} the decision. If it is forced to allege fraud or error in regard to every item question^{ed} the expense and difficulty of the suit will be enormously increased, while, on the other hand, if he can make a general investigation of the company's records and virtually prescribe a system of accounts to be followed in the future its work will be materially lessened.

1 Oral Argument of Judge-Dickinson- Judge Gilbert, p. 26.

2 Ibid. pp. 1ff.; Oral Argument of Judge Dickinson, pp. 18-47.

3 Oral Argument of Judge Dickinson, pp. 18-47.

Judge Gilbert presented the side of the State in regard to this question of pleading, while the Company was represented by both Judge Dickinson and Mr. Horan.

(b) Technical Statement of Claim of the State.

In its Bill for Accounting the State makes ^{claim} claims against the Company and demands seven percent of the gross receipts or revenue as a return thereon. Except incidentally, no mention is made of the different provisions of the charter contained in sections 18 and 22.¹

This position is attacked quite strongly by the Company. Following the argument of Judge Dickinson its position is thus: The charter provides for a payment of 7% of the gross revenue in return for the grants, franchises, etc; the assessment of the usual state taxes upon the property of the corporation; payment by the latter of any difference between the 7% plus state taxes and seven per cent of the receipts. If the payments made by the railroad are not considered as settled accounts then the corporation stands upon its legal rights and insists that the full form of procedure be gone through with; i.e., the assessment of the 7%; second, the assessment of the property; 3rd, payment of any difference so that the total shall amount to seven per cent. It then alleges that the statement of the Bill for Accounting is wrong in that it does not mention the 7% tax, the payment of state taxes, and payment of balance to make 7%. It is further contended that should the court order an accounting for the 7% any amount that might be due could not be collected until the form prescribed by the charter had been adhered to, including a valid assessment of the taxes. Quoting from the argument "They propose to collect taxes for nearly thirty years under this bill. They have simply confounded and confused the tax features, and the accounting feature. They come to this court to collect, as included in that 7%, taxes running over a period of nearly 30 years without any assessment and without any jurisdiction in this court to collect taxes if they had been assessed." ² As a result of the negli-

¹ Bill for Accounting; Oral Argument of Judge Dickinson, Oct. 11-16 pp. 47-121.

² Oral Argument of Judge Dickinson, Oct. 11-16, pp. 71.

gence on the part of the State Auditors to pass as the usual state tax against the corporation it is claimed by the Company that amounts due the state or alleged to be due through wrong methods of accounting could not be collected, in so far as they relate to the excess beyond 5% of the receipts. The Company does not deny the right of the State to question the collection of the 5% provided fraud or error be shown in the accounts, but it does question its right to collect anything over that amount since it must be determined by an annual assessment which has never been made and cannot now be made. The Bill for Accounting does not relate to the 5% payment and, consequently, it should not be sustained.¹

It must be admitted that the above argument is based on technicalities, nevertheless it presents grave difficulties to the collection of the back taxes, at least under the present Bill. It also seems to indicate that error was made by the attorneys for the State in drawing up their demands upon the Company. Whether it will be sustained or not it is impossible to state, but at any rate it shows a serious, though perhaps technical, defect in the State's case.

(c) Constitution of 1870 and question of settled accounts.

Mr. Boys, in referring to the Constitution of 1870, said,² "that if these accounts are to be treated as settled accounts, only to be opened upon specific charges showing fraud, accident or mistake, then the action of the Governor will have changed the contract contrary to the provisions of the ~~existing~~ Constitution of 1870, in that a different kind of proof will be required from the State than would be required for forcing an accounting not have the character of settled accounts". In short, the Governor has no authority to regard the accounts as settled, and if he does his action is not binding upon either the courts or his successors. Again quoting from Mr. Boys: "Now my position is that if

(See page 87.)

it should be held that the Governor, under this power, whatever it may be, in Section 18, did prior to 1870, have the right to settle on account, that any such power of the Governor was absolutely taken away by that constitutional provision of 1870; that any power the legislature may have had to in any way change this contract was absolutely taken away.We contend that no person, no officer of the State Government, nor even the legislature, could settle or agree with the defendant concerning this lawsuit and be binding upon anybody for the future except as they might voluntarily observe the settlement."¹

Judge Dickinson in his answer attempts to reduce this argument to absurdity. "The plain contention is that it takes a court, and that nothing short of a court can ever determine the finality of one of these six months payments....So Mr. Boys' idea is that the legislature in passing those sections, never intended that there should be any settlement by any examination of the Governor, or by payment; that they intended that this matter of taxation should always be left open until there was a lawsuit...."²

The examination of this point leads us directly to the next.

(d) Contemporary Construction of the Charter.

So far as the back taxes are concerned this point is perhaps the most important, at least the most intelligible to the layman. In brief the position of the Company is as follows:-The charter provides for a semi-annual statement of accounts to be submitted to the Governor who has authority to examine those statements and accept the payments made thereunder. In every semi-annual period since 1877 the Illinois Central has submitted to the Governor the required statements which

(1) Oral Argument of Judge Dickinson, Oct. 11-16, pp. 45-121
 2 Oral Argument of Mr. Boys, Oct. , 1908, p.120.

1 Ibid. p. 126.

2 Oral Argument of Judge Dickinson, Oct. 11-16, 1908, pp.239-240.

have been examined and approved by him and the specified paymaster have been accepted by the Auditor of Public Accounts. Therefore, so the Company contends, these accounts have been settled except in case of fraud, error or omission. Quoting from Judge Dickinson's argument: "Our attitude in this case is not that of one who has never accounted."

As referred to in the discussion on Pleading it is necessary for the State to show specific instances of fraud, error or omission to justify the court in ordering an investigation. Quoting again, "We admit here that these accounts can be opened in a proper way, by proper pleading in a chancery court, but we do say that if your honor gives the force and significance to the acts of the Governor that we claim for them, they are at least prima facie correct and that the State is bound to the same course of pleading and practice in chancery as any other suitor would be."¹

The argument in favor of that view is scattered throughout the entire oral argument of the company's solicitors and only a few of the more important references can be given.

In his argument before the court in October, 1907, Judge Dickinson scathingly attacks the position of the present Governor in directing a reexamination of the account of his predecessors. "Never in this state in the arraignments of any political party have any set of men been....discredited in the way this bill discredits these governors"² "The presumption is that if these accounts do not show everything fully upon their face these governors had just as much sense as governors have now.....There were brave men before Agamemnon and there were wise men before--in the state of Illinois before the present generation...."³ Then referring to the hardship of the tax he states:-

¹ Oral Argument of Judge Dickinson, Oct. 8-11, 1907, p. 29.
² Ibid. p. 30.

"This suit is a great injustice to the present stockholders of the company. The claim is in the nature of a tax. ^{With other} That every/railroad company, when taxes are assessed and are paid, in the absence of fraud or collusion on the part of the tax assessor or some deception which must be specifically pointed out, that is all end of the matter. That is true of every tax payer. It is to the interest of the public that there should be an end to such claims. Otherwise there would be no quiet, no security ⁱⁿ the business and there would be nothing that would hang with a more blighting pall upon the enterprise and prosperity of the public than to feel all the time that there was some ghost of that sort to come up in the midst of everything to injure at some future time the investment in the property...."1

Later on he quotes cases showing that the action of the legislature or executive in ^{instances} ~~cases~~ such as the one before the court was considered final and that the courts commonly considered that a continuity of such actions established a precedent for the future.2

Then taking up the matter of accounts submitted to the Governor he develops the argument that they were capable of deciding what was or what was not a proper account. "The governor of Illinois is ex officio a member of the board of directors of the Illinois Central Railroad Company. He has all of the powers and all of the responsibilities of every other director. Now, why was he made a director? It was in order that he might know what that company was doing, the method and character of its business; and especially, in regard to the discharge of its obligations to the State. Therefore it is entirely inconclusive to say that the Governor had no information except what was in those statements. He knew or he ought to have known, just as much as any other director, upon whose authority these settlements were made with the

1 Oral Argument of Judge Dickinson, Oct. 8-10, 1907, p.32.
2 Ibid.

State, what was excluded from those accounts. It was his duty to know¹ and he is presumed to know². Now, upon all those general questions of which the governors who were directors of this railroad company are presumed to have known, every governor of the State of Illinois prior to the present free-wheeling administration, back for thirty years, is arraigned; and his administration is smirched by this bill, and you cannot make anything else out of it.³ As a defense of their conduct he shows that several of the Governors, including Governor Cullom, and the Legislature (1883) had made more or less thorough examinations of the accounts of the Company and if they did not make these investigations every six months they had reasons of their own which were at least sufficient for themselves.⁴ He further contends that it would be absurd to claim that the accounts referred to in the charter meant every record of every shipment passing over the charter lines. A semi-annual examination of these would be exceedingly difficult and, therefore, it is reasonable to suppose that the executives could use their discretion in asking for what reports from the corporation they thought best.⁴

It must be admitted that the Company makes a very strong case and one which has justification from more than a technical legal viewpoint. It must also be admitted that the State so far in the trial has not developed a strong rebuttal argument. Its two main contentions have been referred to before. The first is the point advanced by Judge-Wheeler-Judge Gilbert that the charter of 1851 makes the Illinois Central a trustee and that the State is, therefore, justified in demanding an exhaustive account of the stewardship, not only for the present but for all previous years. Second, it is alleged that the constitutional provision of 1870 makes it impossible for the legislature or executive to make any settlement which will be binding upon the State. A third point has been hinted, viz. that the gross receipts tax is a tax in all

¹ Oral Argument of Judge Dickinson, Oct. 11-16, 1908, p. 10.

² Ibid. pp. 16, 17;

³ Ibid., pp. 250-261.

⁴ Ibid. above, also pp. 261-264.

respects and, in consequence, would not be subject to the statute of limitations. Inferentially the tax was assessed upon the entire gross revenue of the charter lines determined according to a correct basis and if not paid by the railroad should be regarded in the same light as any other assessed taxes which had never been paid. So far, however, this last and perhaps strongest contention has not been accepted on account of the many complications involved in it.¹

These first four points contain the essentials relating to the collection of the back taxes. So far as the argument is concerned it seems that the state has purposely concealed its hand or else has made many serious and possibly fatal errors in the presentation of its case. At any rate, the disinterested observer must acknowledge that the Railway Company has more than held its own in both the strictly technical questions and in the broader aspects of the suit.

(1) The next matter of dispute with which we are concerned relates to interpretation of the term Gross Receipts. The Illinois Central contends that this includes merely the actual cash receipts from operation of the charter lines, that is, all revenue from investments and operations not connected with that portion of the system even though obtained by the Illinois Central R.R. Co. are not subject to the tax.

The claim of the State is not consistent and, at times, is almost unreasonable. So far as it may be summarized at all it is that the term Gross Receipts covers all gross revenue of the Illinois Central R.R. Co. not earned off of the charter lines and, in addition, payment for the use of charter facilities by non-charter lines.

Apparently the State has confused the terms of the charter and in making claim for as great a revenue as possible has developed certain inconsistencies in its argument, as is shown in the rebuttal of the defendant. This does not infer, however, that the contention of the latter party is correct. The legal interpretation of the meaning of

the charter is a matter that must be left to the courts, since there is little precedent to be followed. Furthermore, chapter V of this monograph is devoted to the interpretation of the charter from the accounting side and it is unnecessary to repeat the argument in this place.

(f) Interstate Commerce.

Of much greater interest and importance than the preceding points, at least from the standpoint of general legal theory, is the matter of Interstate Commerce. The constitutionality of the tax, or rather the tax on interstate business of the corporation, is attacked by the solicitors of the defendant on the ground that the charter tax is an infringement on the regulation of interstate commerce. The plea of Judge Dickinson, who is the only one so far who has argued in extenso this part of the suit, may be summarized in the following words:

After admitting the contention of Major Widmer that the charter authorizes the company to carry on interstate business he says, "It is in connection with this manifest purpose thus declared by the Supreme Court of the United States, that I will emphasize later in the argument that the State of Illinois cannot by grant, or charter, or otherwise, regulate such interstate commerce by the imposition of a tax whether direct or in computed form, which compels the company to account, item by item, for a percentage of the money derived from the carriage of interstate commerce."¹ The State demands an accounting item by item for the revenue of the corporation derived from interstate commerce. The seven per cent tax is, in every sense, a direct tax upon the gross revenue of the corporation both state and inter-state. The Supreme Court of the United States has held that the levying of a state tax on interstate carriage or even on revenue derived from interstate traffic is a direct tax and not as the representation of a tax on property is unconstitutional. Thus the imposition of a seven per cent tax upon the

1 Oral Argument of Judge Dickinson, Oct. 11-16, 1908, p. 122.

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gross revenue of the Illinois Central R.R. derived from interstate business by the State of Illinois is a violation of the commerce clause of the federal constitution. Nor is the question affected by the fact that the arrangement between the State and the Company is a contract. A State cannot do by contract or agreement what it has no right to do legally by statute. In other words the Illinois Central R.R. Co. in agreeing to pay to the State seven per cent of the gross receipts from interstate business contracted to perform an act which was repugnant to the federal constitution and it would be ultra vires for the State to collect. Therefore, the only revenue fee of the Illinois Central subject to the charter tax is that derived from shipments moving entirely within the commonwealth.

Such an argument, if sustained by the Supreme Court of the United States, would reduce the charter tax to comparatively insignificant proportions. As the Judge stated: "Now, it may be....when that interstate commerce question is settled, it may be realized that the former administrations were wiser than the present administration; and it may be that the Illinois Central Railroad Company may, instead of erecting upon the borders of the State at Dunleith and at the Cairo bridge, monuments to the god Terminus, erect a monument commemorative of the un-deplored memory of a percentage upon the transportation of interstate commerce, which, in the language of Mr. Cleveland, has gone into a 'state of innocuous desuetude'".²

To discuss the question fully would require much more space than that given to this entire monograph and only the important points of issue can be touched upon.

In answer to the interstate argument of the defendant Major Widmer presented the somewhat novel claim that the tax was not a burden to interstate commerce since the charter did not authorize the corporation

1 Oral Argument of Judge Dickinson, Oct. 11-16, 1908, pp.121-237.

2 Ibid., p.17.

to charge more than a reasonable rate, i. e. and the tax at the usual or reasonable rate, and so long as the tax did not increase the rate to an amount that was unreasonable it did not affect interstate commerce. In other words, it contends that the tax must come out of the pockets of the stockholders and will not impose upon shipping or passengers an additional burden.¹

In reply Judge Dickinson shows that whenever the Supreme Court has passed upon this question there has been no contention that the taxes in dispute were an extra or additional charge imposed upon the shipper, but rather they were part and parcel of the rate. As in several other instances the advantage in argument seems to lie with the defendant Company.

However, Major Wiemer, who alone made reply to the State's contention of this point, does not meet the real issue. Neglecting legal technicalities the suit presents fairly and squarely the question whether a state in the exercise of its taxing prerogatives and imposing the tax purely for revenue purposes has authority under the constitution of the United States to lay a tax upon the revenue derived from interstate commerce passing through the boundaries of the state. As yet the answer of the Supreme Court to such a question has not been clear and unmistakable.

From the standpoint of the State, it is unfortunate that the Illinois Central charter is worded in the way it is. The five per centum tax and possibly the entire seven per centum is, without doubt, a franchise or business tax placed upon every dollar of revenue derived by the charter lines either from intra- or from inter-state commerce. While a tax of that nature is not harmful in itself it presents an opportunity for state regulation of inter-state business since, in the words of Chief Justice Marshall, "the power to tax is the power to de-

¹ Oral Argument of Major Wiemer, Oct. 1908, p97.

surey". If the State can lay a tax of seven per cent upon the revenue of interstate business it can lay a tax of fifty or a hundred per cent upon the same and thereby evade the purposes and intentions of the commerce clause of the constitution. Now, the charter tax of the Illinois Central in and of itself is harmless enough. It is the fulfillment of a solemn contract entered into between the road and the state in consideration of valuable grants made the former. For that reason it would be unjust to the State to have the tax declared void since the Company has already received and disposed of its part of the consideration. Nevertheless, in view of the continued tendency of the Supreme Court to widen the interpretation of the commerce clause and to declare unconstitutional state acts which threaten to encroach upon commerce passing between the states there is strong probability that that part of the tax relating to inter-state shipments will be held invalid.

(g) The remaining questions involved in the suit relate to minor matters affecting particular points, e.g. the interpretation of the ^{Cairo and Dubuque} bridge contracts of the Central and such considerations. Part of them are technical in nature and the remainder are confined to a greater or less extent in the more general problems. Those that are of importance in the determination of gross revenue subject to the charter tax will be discussed later on.

~~The State and Company are still at the threshold of the lawsuit,~~

CHAPTER VII.

THE DETERMINATION OF GROSS RECEIPTS SUBJECT TO THE CHARTER TAX.

The second of the three divisions into which the discussion is divided relates to the determination of what gross receipts are subject to the charter tax, the question of a proper method of pro rating the same between charter and non-charter roads being taken up in Chapter ~~VIII and IX.~~ ^{VI}

In discussing this part of the suit the best method seems to be to ascertain first of all the general principles underlying a classification of gross receipts and then criticize the individual items from that standpoint. The primary considerations in the treatment are those of economics and accounting, but the legal elements are so closely intermixed with the other factors that the writer is forced to consider that side of the question, though with hesitating hesitation. Many of the points are so involved that any decision is difficult and may seem dogmatic. However, it is the writer's intention to avoid such a result.

The provisions of the charter, though perfectly clear at the time, do not settle the difficulty. In section 18 the wording is "five per centum on the gross or total proceeds, receipts or income derived from said road and branches"¹ Section 22 reads: "in case the 5 per cent provided to be paid into the State treasury, and the state taxes to be paid by the corporation do not amount to 7 per cent of the gross or total proceeds, receipts or income, then the said company shall pay into the State treasury the difference so as to make the whole amount paid equal at least to seven per cent of the gross receipts of said corporation."²

1 Charter, Section 18
2 Ibid., Section 22.

In the first instance the wording is "receipts from said road" and in the second "gross receipts of said corporation". There is a distinct difference between the two, which will be referred to later.

In determining what the receipts of the corporation are we must find out what its powers are. Section 1 of the Charter, after providing for the corporate powers of the promoters states that the company is "hereby invested with all the powers, privileges, immunities and franchises, and of acquiring, by purchase or otherwise, and of holding and conveying, real and personal estate which may be needful to carry into effect fully the purposes and objects of this Act." Section 2 supplements this as follows: "The said corporation is hereby authorized and empowered to survey, locate, construct, complete, alter, maintain and operate a railroad, with one or more tracks, or lines of rails, from the southern terminus of the Illinois and Michigan canal, to a point at the city of Cairo, with a branch of the same to the city of Chicago, on Lake Michigan; and also a branch, via the city of Galena, to a point on the Mississippi river, opposite the town of Dubuque, in the state of Iowa." Section 27 provides that "This Act...shall be favorably construed for all purposes therein expressed...."

As stated in chapter II the Supreme Court, in the case of I.C.R.R. vs. Irvin, has passed upon the powers of the corporation. That interpretation may be repeated:

"The object of creating appellant and corporation was to construct and operate a railroad through the central part of the state. The powers expressly conferred upon it were to "survey, locate, construct, complete, alter maintain and operate a railroad from the southern terminus of the Illinois and Michigan canal, to a point at the city of Cairo, with a branch of the same to the city of Chicago, on Lake Michigan; and also a branch, via the city of Galena, to a point on the Mississippi river, opposite the town of Dubuque, in the state of Iowa." No Authority is given to construct other lines of railway or to engage in carrying by water or otherwise than by lines of railway authorized to be constructed. Every section of the act relates to the accomplishment of this purpose and none other. It was to aid in it that the munificent donation of lands was made by the state and the exemption granted by the 22nd section."

Then referring to exemption from taxation the court continues:

"The taxes, then, from the payment of which the Legislature intended to relieve appellant could have been only the taxes which it as a railroad corporation would be otherwise liable to pay upon its property acquired for the prosecution of its business in constructing and operating this line of road. None other could have been contemplated for the plain reason that it was not intended that any other business should be engaged in. And it is a familiar rule of construction that a corporation possesses powers only as are specifically granted by its act of incorporation or are necessary for the purposes of carrying into effect those powers. It surely needs no argument to prove that steamboats are not railroad property or that the right of carrying by rail does not include, as a necessary incident, to carry by water.....

It may be that the business prosperity of appellant is greatly promoted and the public convenience subserved by its ownership and use of this boat. So too it might be by lines of stage coaches or by constructing canals and other lines of railway to connect with its lines of road at such convenient points as would enable it to draw to itself the freight and travel of the country for many miles east and west: ~~I~~ yet it could not be claimed that, therefore, such enterprises are within the powers conferred by appellant's charter or that property so employed is within the contemplation of the Legislature in the enactment of the section under consideration.

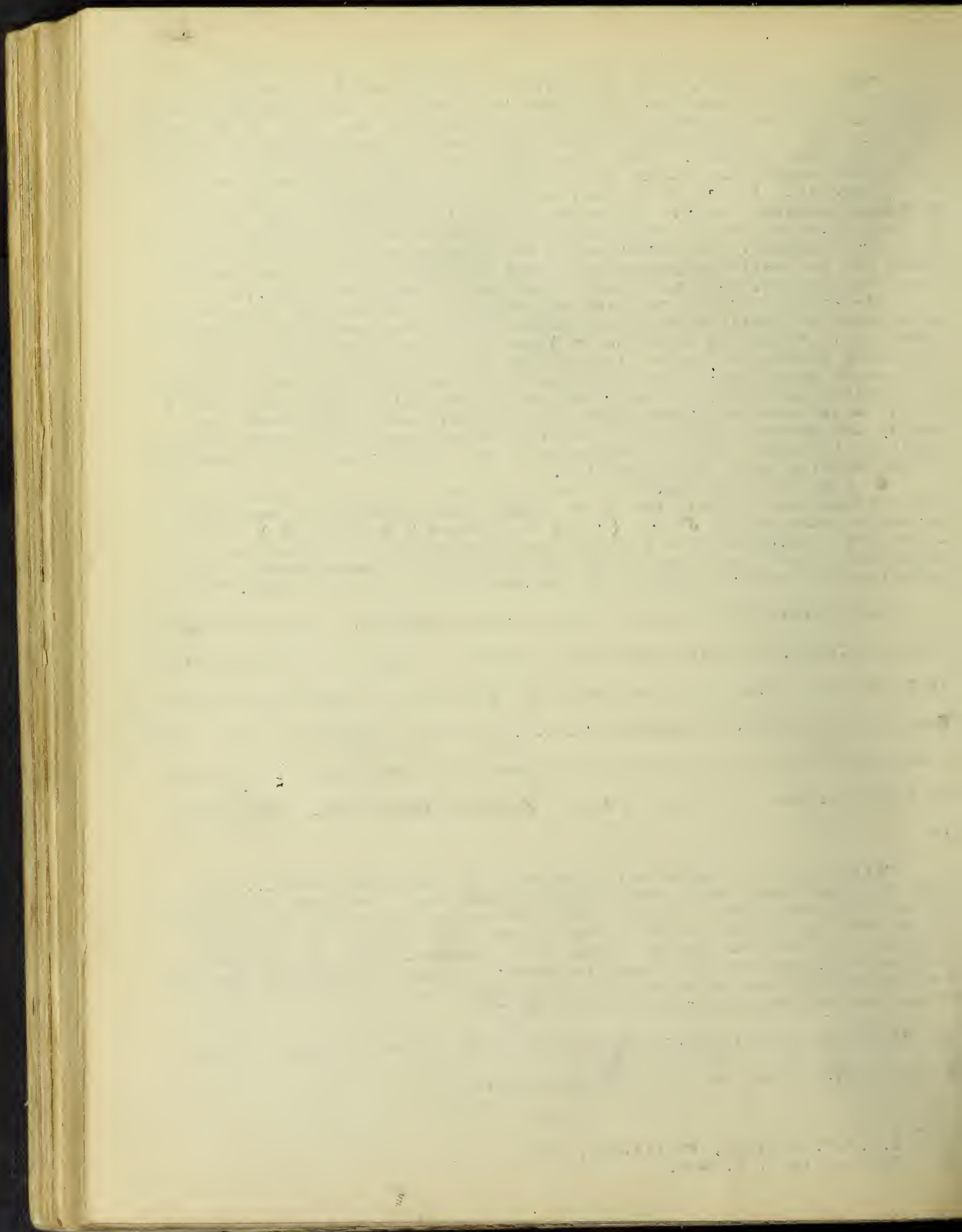
We take the true inquiry to be in regard to property acquired and used by appellant and claimed to be exempt from taxation as was held in a similar case in New Jersey (State vs Newark 2 Buchler 520) "The necessary franchises of a railroad and transportation company are one thing and other franchises which may be convenient means of increasing the dues and profits of the company are another thing."¹

The decision of the Court is clear and explicit. The Illinois Central R.R.Co. has only such powers under its charter of February 10th 1851, as are necessary to the railroad operations of the charter lines. What further rights it exercises, e.g. lease of subsidiary roads, are authorized not by its charter but by the general railway laws of the state of Illinois, particularly the Act of February 12th, 1855. The wording is:

"All railroad companies incorporated or organized under....the laws of this State, shall have power to make such contracts and arrangements with each other, and with railroad corporations of other states, for leasing or running their roads or any part thereof; and also to contract for and hold in fee simple or otherwise, lands or buildings in this and other states for depot purposes; and also to purchase and hold such personal property as shall be necessary and convenient for carrying into effect the object of this Act"²

The Attorney General admits ~~this~~ position in his brief before the LaSalle Circuit Court in the following word:-

1 I.C.R.R. vs Iwin, 72 Ill.454, 455
2 Laws of 1855, p. 304.



The Attorney General in his brief for the State before the Illinois Circuit Court admits this contention:

"The only lines of railroad which the defendant, under its charter and the said amendments thereto, was authorized or empowered to build, construct, equip, lease, own or operate were its charter lines and the said St. Charles Air Line"¹..... "That about the year 1877 the defendant, the Illinois Central Railroad Company, assuming to act under the general statutes of the State of Illinois, began extensively and systematically to build, purchase and otherwise acquire other lines of railroad....."²

The conclusions drawn from the quotations cited above should not be too general. In the first place the case is one of exemption from taxation not of revenue subject to taxation. Now it is a familiar rule of court procedure that in case of doubt in a question of taxation or revenue a decision shall be made in favor of the State, & i.e. exemption from taxation is limited to a strict interpretation of the law, while in cases of revenue the statute or act shall be interpreted liberally.³ This leaves room for possible difference in ruling in a case involving revenue than was applied in the exemption cases. However, where the property ~~is~~ exempt from taxation and the property the revenue from which is subject to a special tax are the same it is difficult to see how the court can make a distinction between the two without reversing or overruling I.C.R.R. vs Irvin. It is only in rare incidents that the Supreme Court actually reverses a former decision and since the dicta in the case cited correspond to dicta of the federal Supreme Court and the Supreme Courts of other states we may reasonably suppose that a similar or analagous decision will be given in a purely revenue case.⁴

Moreover, from the wording of the charter the three factors, property exempt from local taxation, property subject to be listed with the

- 1 Brief of the State, March Term, 1908, p. 44, section 16.
- 2 Ibid., p. 46, section 19.
- 3 Cf. Judson, Law of Taxation, chapter pp
- 4 Ibid.

Auditor of Public Accounts and subjected to the ordinary state tax, and property the revenue from which is subjected to the seven per cent gross receipts must be one and the same. In *Neustadt vs I.C.R.R.* the court held:

"In consideration of the undertaking of the company to construct a great thoroughfare which should involve the expenditure of millions and which was an experiment and seven per cent of the gross amount of its receipts or income to be paid as to the state the company was relieved from the payment of other state taxes to be assessed as provided in this section. (22) ¹

Therefore, without a specific decision of the court to the contrary, it may be taken for granted that exemption of property from local taxation and subjection of revenue from property to the special tax are coincident. In other words, all property the revenue from which is subject to the seven per cent tax is exempt from ordinary taxation, while, conversely, only such property as is benefited by such exemption should pay the special gross receipts tax.²

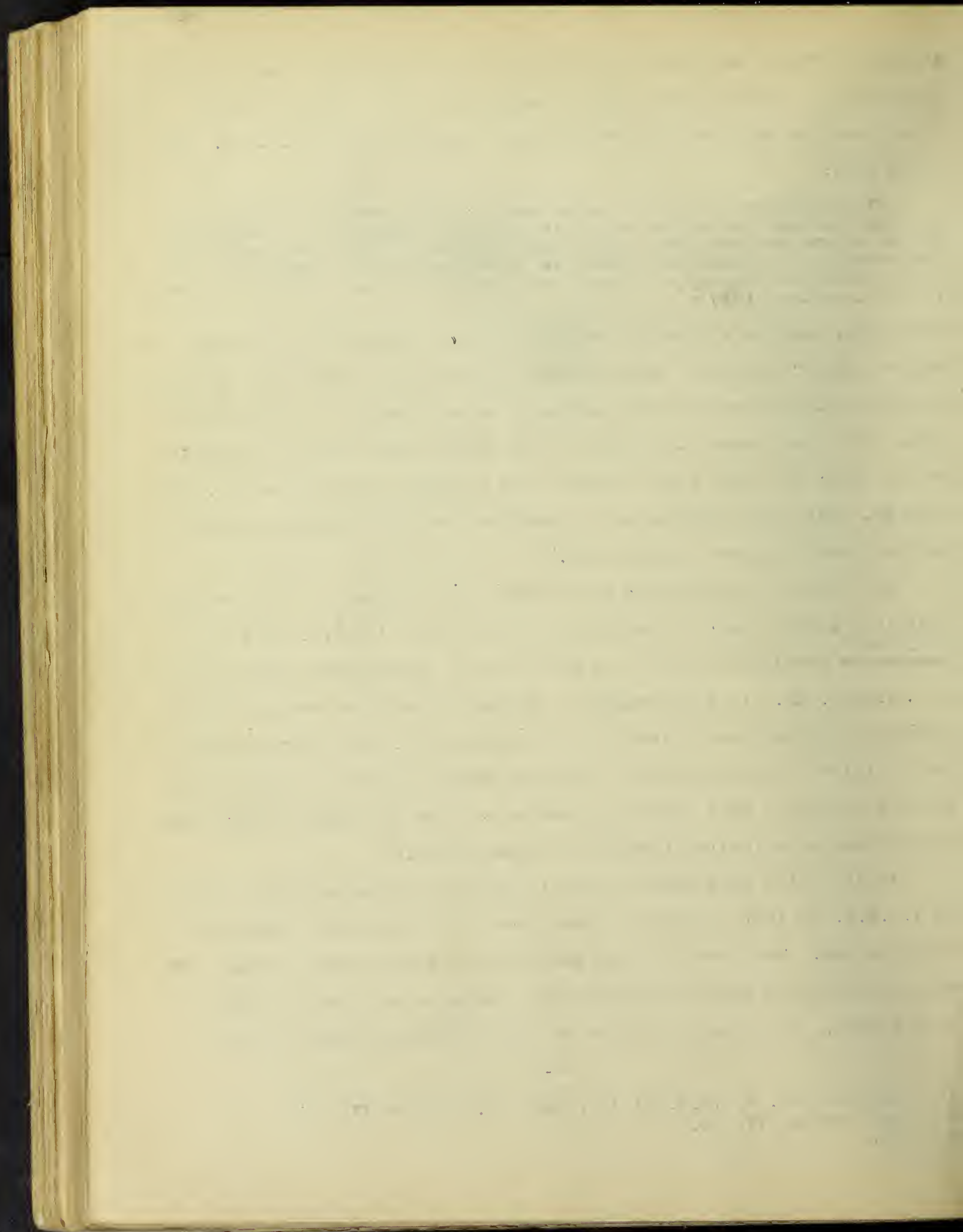
The second consideration to be taken into account in the court decisions quoted above is their specific nature. *I.C.R.R. vs Irvin* subjected ~~exempted~~ a particular boat or at most line of boats plying from Cairo to Columbus, Ky., to local taxation; *Gilkerson vs Brown* excluded from exemption certain grain elevators in Chicago, etc. The remainder of the decisions is merely obiter dicta and while fairly conclusive proof of what the court will decide in analagous cases the facts at issue may necessitate a radically different interpretation.³

In line with this second point it should be noted that the wording in *I.C.R.R. vs Irvin* relates to operations of the railroad beyond the right of way. The ferry boat in question was plying between points 22 miles distant and might be regarded as analagous to a feeder line of that length. The examples quoted by the court also relate to such

1 *Neustadt vs. I.C.R.R.* 31 Ill. 485, cf. Chapter II, pp.

2 Cf. Chapter II, pp.

3 Cf.



undertakings, e.g. canals, stage coaches, etc. It is only by inference, therefore, that the decision can be construed as affecting operations carried on by the railway on its right of way. In other words the decision states that the charter of the Illinois Central R.R. Co. is a charter to carry on railroad operations over a specific piece of line and since authority to carry on non-railroad operations is not specifically granted such powers cannot be construed into the charter by the judiciary. Examining the decision in the light of other court decisions of similar statutes of this or other states it seems clear that the object of the Court was to confine the operations of the railroad to only such operations as were commonly practiced by transportation companies carrying goods by rail and were strictly incident to such business. This matter will be discussed more fully in succeeding pages, but the following illustrations may be considered correct: The Illinois Central R.R. Co. is authorized to own and use a wharf boat at Cairo for transferring passengers and freight, but is not empowered to run a ferry boat.¹ Likewise it could own and operate sleeping cars or hotels on its line for the accommodation of its passengers, but could not, under its charter, construct and manage a hotel at the corner of State and Madison, for instance, in Chicago, for general travellers, even though such a service might materially increase the business of its system.²

If the conclusions reached in the preceeding pages are correct we may divide the Illinois Central Railroad Company into two corporations. The first, chartered under special Act of February 10th, 1851, has power to construct and operate a line of railroad from E. Dubuque to Cairo and from Central^{is} to Chicago, nothing else. These operations are limited to the carrying of freight and passengers between stations on that

1 I.C.R.R. vs. Irvin, 72 Ill. 455

piece of road and to such other ~~x~~ business as ~~y~~ is purely incidental to the proper and efficient fulfillment of those services. This includes "holding and conveying, real and personal estate which may be needful to carry into effect fully the purposes and objects of" the charter.¹

The other corporation is one brought into being by the General Railway Act of 1855 and all subsequent railway laws of the State. It has authority to construct, lease, acquire and operate such lines as it sees fit, subject to the laws in question; to hold real and personal estate necessary for the proper execution of these powers; and to carry on all other operations authorized by the various state acts and statutes or by special charters. It is under this authority that the Illinois Central Railroad Company is operating its subsidiary roads and is holding the securities of those corporations necessary for control.²

So far as the writer can judge from the briefs of the State and of the Railroad Company both parties to the suit have accepted this interpretation of the Charter of 1851. Exception might be made to the right of the Illinois Central to make investments (Cf. pp), but after all this is merely a difference in interpretation of the principles advanced above. In this and other points the railroad has taken a narrow view of the charter, while the state has construed it more liberally. In going into the discussion as fully as he has the writer is attempting to clear up doubtful points and place the opposing views on a comparable basis. It is, of course, admitted by both sides that only such revenue as comes from operations authorized by the charter of 1851 is or should be subject to the seven per cent tax.

It is now necessary to determine, at least so far as possible, what operations are those of a railroad corporation or strictly incidental thereto. The discussion is confined to "Income from and incident to Operation", while "Income from Investments" is taken up later.³

1 Charter, section 1.

2 Railway Laws of Illinois, R.R.&W. Com. Report, pp. 589-679.

3 pp.

1. The first part of the paper is devoted to a general
discussion of the problem. It is shown that the
problem is of great importance in the theory of
differential equations. The problem is to find the
general solution of the differential equation
$$y'' + p(x)y' + q(x)y = r(x)$$

where $p(x)$, $q(x)$ and $r(x)$ are functions of x .
The general solution of this equation can be found
by the method of variation of parameters. The
method consists in assuming a particular solution
of the form
$$y = u(x)y_1(x) + v(x)y_2(x)$$

where $y_1(x)$ and $y_2(x)$ are two linearly
independent solutions of the homogeneous
equation
$$y'' + p(x)y' + q(x)y = 0$$

and $u(x)$ and $v(x)$ are functions to be
determined. The method of variation of
parameters leads to a system of two
linear equations for $u'(x)$ and $v'(x)$.
The solution of this system gives the
functions $u(x)$ and $v(x)$, and hence the
general solution of the original equation.

By its charter and the laws of Illinois the Illinois Central Railroad Company proper is authorized to "operate a railroad..."¹ and has powers "for the transportation upon the same of persons, goods, wares and merchandise...."² The General Incorporation Act of May 11, 1877, empowers railroads incorporated thereby to "receive and convey persons and property on its railway, by the power and force of steam or animals or by any mechanical power."³ No further definition of the word "operate" is found in the statutes of the State. Under these powers the corporation has or is now carrying on operations of various kinds. In the absence of specific legislation or court decisions to the contrary it may be assumed that the Illinois Central R.R. Co., under its charter, has power to carry on such undertakings as are commonly undertaken by the railroads of the country when they relate to "the transportationof persons, goods, wares and merchandise", provided such services are confined to the mileage constructed under the charter. In its Classification of Operating Revenues the Interstate Commerce Commission, acting under authority of the Hepburn Act, has prescribed accounts for the operations of interstate railways which are supposed to include all strictly rail operations.⁴ This classification has been accepted by the Railway and Warehouse Commission of Illinois and may, therefore, be regarded as an official statement of operations permitted the railroads of the state incorporated under special or general laws, unless specific provision is made to the contrary. This classification is quoted below, with certain definitions. Where no mark is placed near the classification the Illinois Central R.R. Co. during the period from 1851 to 1908 has performed the operation in question. Where an # is placed after it such operation has not been undertaken. Where it is followed by / the operation is not authorized under the Irvin decision.

1 Charter, Section 1.

2 Ibid., Section 6.

3 Laws of Illinois, 1877, p. 150. R.R.&W. Com. Report, p 598. Section 7.

4 Classification of Operating Revenues (Supplement); Classification of Revenues & Expenses of Outside Operations, 1st Edition.

A OPERATING REVENUES. 1 ii iii

I REVENUE FROM TRANSPORTATION:

1	Freight Revenue	±
2	Passenger Revenue	±
3	Excess Baggage Revenue	±
4	Parlor and Chair Car Revenue	±
4	Mail Revenue	±
6	Express Revenue	±
7	Milk Revenue (on Passenger Trains)	±
8	Other Passenger-Train Revenue	±
9	Switching Revenue	±
10	Special Service Train Revenue	±
11	Miscellaneous Transportation Revenue	±

II REVENUE FROM OPERATIONS OTHER THAN TRANSPORTATION:

12	Station and Train Privileges	±
13	Parcel-Room Receipts	±
14	Storage--Freight	±
15	Storage--Baggage	±
16	Car Service	±
17	Telegraph and Telephone Service	
18	Rents of Buildings and Other Property	±
19	Miscellaneous Revenue	±
20	Joint Facilities Revenue--Dr.	±
21	Joint Facilities Revenue--Cr.	±

INCOME INCIDENT TO OPERATIONS.

22	Rent of Tracks and Property	±
23	Hire of Equipment	0
24	Sundry other items.	0

C OUTSIDE OPERATIONS

25	Boat Lines	±
26	Ferry Lines	±
27	Harbor Terminal Transfers	
28	Electric Railways	±
29	Express Lines	#
30	Cab and Omnibus Service	#
31	Sleeping-Car Service	
32	Parlor and Chair Car Service	±
33	Dining and Special Car Service	±
34	Electric Light and Power Plants	0 ±
35	Gas Producing Plants	±
36	Canals	±
37	Grain Elevators	
38	Stock Yards	0
39	Commercial Telegraph and Telephone Lines	#
40	Hotels and Restaurants	0 ±
41	Amusement Parks and Resorts	
42	Coal Storage Plants	#
43	Cold-Storage Plants	#
44	Commercial Ice-Supply Plants	±
45	Miscellaneous Toll-Bridge Service	±

No mark Colum i means operation performed by Illinois Central R.R. Co.
 " " " " no authorized by charter
 " " " " never performed
 " ii " " in dispute with state
 " iii " " subject to seven per cent tax.

In determining what items of revenue should be included in the settlement of gross receipts subject to the charter tax the classifications or decisions of the Interstate Commerce Commission (Bureau of Statistics and Accounts) should be followed where there is not a definite decision of the court to the contrary, since the accounts established by that body may be regarded as the standard for American railways. However, revenues listed for tax purposes will differ somewhat from revenues reported to the Commission for purely statistical calculations and, owing to that fact and the existence of disputed legal questions, it is necessary to see established certain principles governing the distribution of receipts.

A close examination of the Interstate Commerce Commission Classification shows that the first four groups, viz. (1) Revenue from Transportation by Rail; (2) Revenue from Operations other than Transportation by Rail; (3) Revenue Incident to Transportation by Rail; (4) Outside Operations, may be divided into two classes. For purposes of discussion the first class may be termed Obligatory or Common Law functions of a railway; the second may be called Optional or Bailor functions.

It is now universally recognized that a steam railroad is a common carrier and as such is governed by the rulings of the Common Law in regard to common carriers. Moreover, federal and state statutes have emphasized, strengthened and enlarged the strictly common law duties of the roads. When a railroad corporation secures a charter in Illinois constructs a road, files with the State and Interstate Commerce Commission schedules of rates and fares and, in general, operates as a means of transportation it thereby becomes a common carrier for whatever commodities are listed in its classifications and tariffs. Whether it is a common carrier for articles not listed in its classifications is a point it is unnecessary to answer since the omissions are of extremely

signific importance. These duties assumed by the carrier, in brief, are as follows: the transportation between terminals of all freight and passenger traffic presented to it, subject to the reasonable rates promulgated by it and to its providing reasonable accommodations; furnishing customary facilities for the handling and storage of freight and for the comfort of its passengers; establishment of reasonable tariffs without unjust discrimination in favor of community or individual. Group I of the I.C.C. Classification covering Revenue From Transportation by Rail includes those items which are commonly regarded as common law functions of a railroad.

So long as the corporation continues to retain its charter and operate its railroad it must meet in an efficient manner all reasonable responsibilities pertaining to its common law functions. That is, it must transport freight and passenger traffic between station terminals and provide customary facilities for the movement and accommodation of the same. If it neglects or refuses to perform these duties the courts have the authority to compel their performance through mandamus proceedings. Ordinarily the State has delegated supervision of the roads to a special commission, and this body enforces the observance of the common law duties of the carriers.

Now, when the Illinois Central Railroad Company accepted its charter on March 19th, 1851, it did so subject to the provisions of the Common Law. In other words, so long as it continued to retain that instrument and to operate a railroad it was bound to perform the Common Law duties of a Common Carrier and to transport, within its reasonable capacity, all freight and passenger traffic presented to it. One of the conditions on which it obtained its charter was the payment of seven per cent of its gross revenue to the State of Illinois and it is a reasonable interpretation of the charter to assume that that percentage was to be collected from all revenue arising from the performance of its Common Law functions. Any other interpretation must result in con-

fusion and ambiguity. If there were any question the practice of the past fifty four-years has settled the point beyond ordinary doubts.

Moreover, the charter tax obligations of the corporation are an inalienable lien upon its franchises and property. Judge Dickinson, General Counsel for the Company, in his argument before the La Salle County Court admits that contention. "Another thought: The Company can never part with the main line and branches and shake off this burden. There is not any scheme known to the law by which the Illinois Central Railroad Company could, by alienation separate the road from the burden that adheres to it. It is there, and it is going to cling forever. The State made the burden perpetual." But upon what does the burden fall? The physical property? It is absurd to claim that the tax provision is an inalienable lien upon every rail, tie, brick or piece of gravel at one time part of the charter lines. Upon the Illinois Central R.R. Co.? No one denies that the corporation can dispose of its property and its franchises to any other corporation subject, of course to the claim of the State. In the ultimate analysis the burden falls upon ^{the} operation of a railroad extending ^{from Chicago} via Kankakee, Champaign, Maton, Centralia, Anna to Cairo and from Centralia junction via Decatur, Bloomington, Freeport and Galena to Dunleith. It is as plain as a pike staff that whoever owns, operates and controls that road is subject to the burden and the only operations which ^{under all conditions} pertain to the same are the Common Law operations authorized by the charter. So long as these operations are performed in connection with the charter mileage they are subject to the charter burdens and exemptions no matter who may be the nominal owner or operator of the property. Whoever carries on these functions is an agent of the Illinois Central Railroad and either the agent or the principal is responsible for payment of the obligations. Therefore, we may state that the charter tax is a perpetual burden upon the revenue derived from ~~any and all~~ ^{such} Common Law operations carried on over the tracks of the Illinois Central Railroad

as are authorized by the charter of 1871, i. e. "for the transportation of upon the same of persons, goods, wares and merchandise..." The tax is a perpetual burden upon no other services of the Illinois Central Railroad. (The Illinois Central Railroad is understood to mean the tracks and buildings of the line constructed under the charter)

In addition to the Common Law operations of a railroad there are numerous other services now performed which are more or less optional. Without specific legislation to the contrary these duties are represented by groups II, III, IV of the I.C.C. Classification, viz. Revenue from Transportation by Rail; Outside Operations; Operations Incident to Transportation by Rail. At law, when the railroad undertakes these duties it is acting not as Common Carrier but as Billed. None of these duties are an essential part of railroad operation. Many of them, e.g. management of lunch counters, can be carried on by private parties who have conformed to the existing municipal or state laws. Under ordinary circumstances, the railroad as a railroad could not obtain land by eminent domain proceedings to be used for the avowed purpose of operating such kinds of business. If having the facilities which are not available for other and transportation functions the corporation undertakes these so-called optional services it must do so under the authority of its charter. While that instrument empowers it solely to construct and operate a railroad these other duties are so strictly incidental to that action that it is customary for the corporation to perform them when they are incidental to its main function of transportation. In such instances no special charter is necessary.

The assumption of these duties is strictly optional with the carrier. For instance, the Illinois Central runs a ^{dining} ~~parlor~~ car upon No. 1 from Chicago ^{west} ~~south~~; it does not have one on No. 23 south. It must run these trains, but it is entirely within its own bailiwick to say whether No. 1 or No. 23 shall have a dinner, or whether there shall be any

dining cars run on the system. Formerly there were none. It might even go so far as to abolish all optional services outlined in groups ii, iii and iv and yet it is doubtful whether the courts would compel their restitution: certainly not under the a strict interpretation of the Common Law. It is unquestioned that the company could abolish all charges for parcel rooms, storage of baggage and freight, furnish newspapers and magazines free and cease to operate dining and lunch counter service on its cars and grounds. Certain travellers might be inconvenienced, but there would be no redress in the courts.

This being the case, revenue from these optional services is not in the same category as revenue from the "transportation.....of passengers, wares, goods and merchandise". No competent authority would admit that the General could avoid payment of the tax on its freight business by leasing the operation of the same to an outside corporation. Would any sane man claim that if the lessees of the existing Illinois Central lunch counters should surrender their leases and take up quarters off of the company's right of way and outside of its jurisdiction, and run lunch counters ^{on} their own responsibility and for their own profit, that under these circumstances the gross revenue of the lunch counters is gross revenue of the Illinois Central R.R. Co. just because its proprietors formerly operated lunch counters on its premises? Certainly not. It is evident, then, that the service must be performed in connection with the company's facilities.

Carry the case one step further. A restaurateur at Champaign rents 500 square feet of the company's right of way for \$100 per year and establishes thereon a lunch counter, which he runs for his own profit. He is running the business on his own responsibility, the company has nothing whatever to do with it, the courts would not compel it to run the lunch counter, ergo, the revenue from its operation is not revenue of the railroad, although the \$100 rental might be. If the company has no authority to rent this piece of land the lease is ultra vires, but

even in that case the receipts of the restaurant are not receipts of the corporation.

Finally we must ask what the corporation conducts the lunch counter itself or through its agents. Is the gross revenue from the same revenue of the corporation or is it not? The only authority for the company's existence comes from the charter granted it by the state; therefore, the corporation must conduct the business as a corporation. If the powers do not extend that far the operation is ultra vires and any citizen could enjoin the operation. If the business is not conducted by the corporation as a corporation the parties managing the same are not agents of the corporation; they are trespassers and could be ousted by the proper legal authorities. The revenue is either revenue of the corporation derived from the exercise of its chartered rights, or it is not revenue of the corporation and does not belong to the corporation.

What is true of the lunch counter is true of all optional services of the Illinois Central. One of two conditions must exist. (1) The service is performed by the Illinois Central R.R. Co. under authority of its charter of 1851, or (2) The service is performed by an outside party who leases certain facilities from the railroad company. Since the undertaking of the service is strictly optional the company can adopt one or the other expedient. If the work is carried on under other arrangements the parties doing it are trespassers and could be evicted by officers of the law. If the rent of facilities for the purpose is ultra vires the corporation must either do it itself or else cancel the right of the lessee.

All operations of the Illinois Central pertaining to the charter lines must be authorized by the charter or by general laws. If the latter do not confer rights not covered by the former the operation may be presumed to come under the charter. If they are not so authorized they are ultra vires and cannot be enforced. Where they are performed

under the charter they must be carried on in accordance with all the obligations of that instrument. As already referred to, the charter authorizes the construction and operation of a specified railroad--- nothing else. Inferentially revenue from all operations of that railroad authorized by the charter are subject to the charter tax since the only operations authorized relate to the construction and management of the railroad. Therefore, where optional railway functions are authorized by the charter and are performed by the corporation under those powers they must be operations the revenue from which is subject to the charter tax. If they are not subject to the tax they are either ultra vires or are performed under general laws.

The points in regard to optional and Common Law operations of the Illinois Central may be summarized as follows: (a) The charter tax is an inalienable lien upon the revenue of all ~~expressed~~ Common Law or Compulsory operations of the Illinois Central Railroad (i.e. charter lines) authorized by the charter of 1851. (b) Revenue from all Bail or Optional services performed by the Illinois Central R.R.Co. under authority of the charter are subject to the charter tax so long as the corporation or its agent performs the service. Revenue from operations ^{are not operations authorized by the charter and} performed by lessees or not authorized by the charter/should not be subject to the tax, although rent for charter facilities should be.

The argument advanced in the chapter to this point may be stated in brief in the following paragraph, subject, of course, to the limitations given in detail above:

The Seven Per Cent Charter Tax is a burden upon all Common Law ^{operations,} such and upon ~~all~~ Optional operations performed by the corporation, as are authorized by the Charter, i.e. "the transportation of passengers, wares, merchandise and goods", when the same is performed upon the lines authorized by the Charter, i.e. the railroad from Chicago to Cairo and from Centralia Junction to Dunleith, together with such incidental revenue as is derived from other operations authorized by the charter."

I REVENUE FROM TRANSPORTATION

1 Freight Revenue.

Since this is the most important single account it is advisable to repeat the ruling of the Interstate Commerce Commission regarding this point.

"This account includes amounts earned by a carrier for the transportation of freight.

"To this account should be credited a carrier's proportion of receipts for freight transportation; also overcollections made in excess of proper rates, such over collections to be held subject to claim.

"To this account should be charged overcharges paid resulting from the use of erroneous rates, weights, or classification; amounts paid for switching charges absorbed; authorized allowances and localized freight arbitraries; also amounts paid for switching or to transfer companies for completing a haul or effecting store-door deliveries, when the cost of such service is included in the rate charged by the carrier; uncollected earnings on freight destroyed in transit and on short and lost freight; also uncollectible undercharges determined after delivery has been made."¹

For the purposes of the suit there are ^{three} ~~five~~ points of disagreement between the state and the railroad in regard to the item "Freight Revenue. They are:

- (a) Does the term earnings include merely cash receipts from shippers or does it include charges made subsidiary roads for transportation of materials, i.e. should a charge be made for the carriage of company materials for non-charter roads of the system and the amount be credited to income subject to the charter tax.
- (b) Does the term "Revenue" mean the cash collections from shippers or should allowances for rebates, drawbacks, erroneous charges, etc. be added.
- (c) Should switching and transfer charges made foreign companies for delivery to points beyond the company's right of way be deducted from gross receipts.

These points ^{will} ~~may~~ be discussed in the order given above.

(a) One of the claims of the state is that the Illinois Central has carried over its charter lines large quantities of coal, iron and other company materials for the operation and construction of its subsidiary lines without making any charge therefor and without crediting to the receipts subject to taxation any amount as earnings thereon.

¹ I.C.C. Classification of Operating Revenues, 1st Issue and Supplement.

IN SENATE,
January 10, 1905.

REPORT OF THE
COMMISSIONER OF THE LAND OFFICE,
IN RESPONSE TO A RESOLUTION PASSED BY THE SENATE
JANUARY 10, 1905.

ALBANY:
JANUARY 10, 1905.

TO THE SENATE,
BY THE COMMISSIONER OF THE LAND OFFICE.

ALBANY:
JANUARY 10, 1905.

ALBANY:
JANUARY 10, 1905.

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JANUARY 10, 1905.

According to the argument advanced in the preceding pages the lines of the Illinois Central operated under its charter of 1851, i.e. the 705.5 miles from Chicago to Cairo and Central to E. Dubuque, are entirely independent of the remainder of the system for taxation purposes and the two parts should be treated as foreign roads. Therefore, company material used on non-charter roads cannot be regarded as company material when on the charter lines. The Illinois Central R.R. Co. as owner of the latter lines is no more entitled to carry freight belonging to non-charter roads free of charge than it is entitled to carry coal for the "Northwestern" or "Alton". Of course, it is not correct for the Illinois Central to include charges for company material belonging to subsidiary roads in its reports to the Interstate Commerce Commission because its reports to that body are for the entire operated mileage, but in the reports to the Auditor and Governor the original mileage is the only division operated under the Act of February 10th, 1851, and, consequently, ^{is not} it/a violation of either the spirit or letter of the Interstate Commerce Commission ruling. Accordingly, the statement of gross receipts subject to the seven per cent tax should include a charge for moving company material of all other portions of the system. This amount should be credited to the charter lines and charge to the ^expenses of the subsidiary companies. The proper rate for such services would be "the usual and ordinary amount which would have been charged had such services been performed for foreign lines of railroads in which the defendant had no financial interest."¹

(b) The second difference relates to discrepancies existing between tariff rates and the cash actually received by the company, particularly to rebates and drawbacks. Since a railroad is by no means a perfect organization it happens many times that too high or too low rates, i.e. compared with the tariffs, will be charged the shipper either accidentally or as illegal discrimination.

1 Brief of the State, p. 217.

The ruling of the Commission is explicit in regard to the interest under or overcharges. "Overcharges¹ resulting from the use of erroneous rates, weights, or classification; uncollected earnings on freight destroyed in transit and on short and lost freight; also undeductible undercharges determined after delivery has been made" should be charged^{to} i.e. deducted from, freight revenue. However, deductions or additions are to be made only when money is paid to or received from shipper; otherwise the under or overcharge remains a credit to revenue.¹ The line of reasoning on this point is clear. The fact that a certain amount of cash was received by the company from a shipper does not make that money part of the receipts of the company if it was not legally entitled to the same. In other words, the money does not belong to the company, but is held in trust for the shipper. Therefore, all legitimate refunds, rebates, drawbacks, etc. deducted from income should not be subjected to the seven per cent tax.

In addition to legitimate rebates the Illinois Central undoubtedly has paid illegal rebates of one kind or another; at least that is the charge of the Attorney General.² In Illinois since 1857³ and for interstate commerce since 1887³ the tariff quotations of rates made by Illinois railroads are the legal rates and it has been illegal for the companies to charge a shipper either more or less than the amount stated therein. Thus, a correct tariff charge constitutes the gross revenue of a railroad corporation for that particular shipment. If any deduction or addition not authorized by the tariff be made it is clear that the difference between the amount stated in the tariff and that collected is illegal and, ~~seriously-speaking~~, should be added^{to} or deducted from the statement of revenue. Where the carrier receives more than it is entitled to the difference should be returned the shipper as an over

1 I.C.C. Classification of Operating Revenues, Revised Edition, p.10
 2 Act of
 3 Act of 1887

charge and treated as other overcharges referred to in the previous paragraph. If the carrier receives less than the legal rates, either by willful neglect to collect the same, by repayment of money actually received, or by other means such as payment of fictitious claims, expenses, etc., then the deduction must be regarded as an expense incurred in obtaining the business. For instance, if the legal rate is \$100 and the ~~carrier~~ ^{carrier} collects that amount, but pays the shipper \$12.50, then that latter amount must be regarded as an expenditure necessary to secure that particular shipment. Theoretically, it makes no difference whether a carrier pay a certain merchant \$10 per car for sending his freight via the road in question or whether he allows the traffic department an equivalent of \$10 per car to be used in salaries and expense account for soliciting the freight.

Now it is clear ~~as a piker~~ that the revenue subject to the seven per cent tax is gross revenue and the Illinois Central has no legal right to deduct from its legal tariff charges any payments whatever in the nature of expenses. It makes no difference whether those expenses are for soliciting ^{for} or ~~handling~~ the business. While the charges of the Attorney General do not state ^{what} ~~whether the rebates are merely overcharges and what are~~ ^{may be inferred} actual deductions from tariff rates it is ~~clear~~ ^{clear} that a very considerable portion are of the latter kind, e.g. deductions for fictitious or real claims. In such instances it is difficult to find any reason why any deduction whatever should be made and where it is made it seems equally plain that the revenue account should be credited with the full amount of legal tariff charges and expenditures for rebates, claims, etc., charged to Operating Expense. To do otherwise is a violation of sound accounting practice if not of both federal and state law.

(c) The third question relates to terminal and transfer charges at Chicago. It seems to have been customary for the Illinois Central to make certain through rates from and to consignor's and consignee's

place of business, thereby absorbing all local switching or transfer charges. In its statement of revenues made to the Governor the expense of this delivery was deducted, presumably on the theory that the rate collected from the shipper was not a single but a joint rate of which part went to the railroad and part to the switching or transfer company. The right of the company to do this was denied by the State on the ground that the deduction was an expense and not a joint rate.

The Interstate Commerce Commission authorizes a deduction from revenue of: "amounts paid for switching charges absorbed; authorized allowances and localized freight arbitrations; amounts paid for switching or to transfer companies for completing a haul or effecting store-door deliveries, when the cost of such service is included in the rate charged by the carrier".¹ This, of course, applies only when the terminal transfer switching or delivery is performed by a party other than the carrier. When the work is done by the carrier the revenue is credited to "Freight Revenue" in case of transfer work and to "Switching" in case of switching. In such instances any expense of operation or maintenance is charged to "Operating Expenses".² The Commission, thereby seems to accept the position of the Illinois Central that the expense of terminal movements in question is a payment as part of a joint rate rather than a strict operating expense to the carrier collecting the revenue but not performing the terminal service.

If we analyze the operation we find that this is the case. The switching company and the railroad, or the transfer company and the railroad unite to perform a particular service, just as two railroads unite for the transportation of through traffic. The railroad company does not lease the terminal company, viewed from the accounting standpoint, and, consequently, the operations of the two corporations should be kept apart. Otherwise, there would be a duplication of revenue.

I.C.C. Classification of Operating Revenue, Revised Edition, p. 10.
 2 I.C.C. Classification of Operating Expenses

(1) The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

For the purposes of the charter tax, however, it is necessary to adopt a somewhat stricter interpretation than that taken by the Commission. Since the Illinois Central quotes a bill from one of its stockholders without a statement of any terminal charge the presumption is that the service is performed by it, or at least that services other than customary are carried on as a free favor or gift to the shipper, the expense of such additional service being borne by the railroad. In other words, the presumption is that the charge is an expense rather than part of a joint rate. The presumption further is that the party performing the terminal delivery is the agent of the railroad.

To ascertain the truth of these presumptions it is necessary to refer to the powers of the Central. In the introductory part of this chapter it was stated that only such revenues of the C. & N. should be subjected to the tax as were derived from operations authorized by the charter of 1851 and that these operations were limited to the charter mileage. The question, therefore, is Is the collection and delivery of freight in the city of Chicago, particularly the functions in question, authorized by the charter?

These operations are of two kinds: (a) drayage or cartage of LCL freight from the freight stations of foreign railroads (also of shippers?) to the freight stations of the Illinois Central; (b) switching CL freight from tracks of the Central to consignee's warehouses located on the lines of foreign railroads. In the first instance it seems the service was performed by transfer companies* and in the second by the roads on whose tracks the consignee's plant was located.

The collection and delivery of LCL freight by drays belonging to the Illinois Central, although not specifically authorized by the charter, is undoubtedly a part of railroad operation and might, therefore,

* The Brief of the Attorney General (page 213, 214) states drays of other railroads, but this is undoubtedly a mistake. At any rate the principle is not affected.

by carrier on. As a matter of fact the company owns and operates vehicles of this kind and the same is true of other railroad corporations. However, this is what is termed earlier in the chapter a rail power, i.e. it is so closely connected with the movement of freight and passengers that it can be performed without a special charter yet the performance is purely optional with the carrier. Since the company can do the work itself it also has authority to delegate it to an agent and as stated above, the nature of the arrangement entered into with the transfer companies, i.e. the payment of fixed charges per car or load moved, implies that they are acting as its agent. Now an agent is supposed to have all the duties and responsibilities of the principal and in the case at issue one of these responsibilities is the payment of seven per cent gross receipts tax. Consequently, this line of argument leads to the conclusion that so long as the present arrangement exists the expense of drayage and cartage is a strict expense and no deduction should be allowed for the same in stating the revenue subject to the charter tax.

Where different ⁵arrangements are entered into the case may not become subject to the tax. For instance if its tariffs stated specifically that its rates were so much from its freight yard to consignee's station and in addition quoted the rates of the transfer companies with provision that for shippers desiring it the company would collect the two charges and pay the transfer rates to the transfer companies the rate would be a joint rate and the transfer companies could not be regarded as agents of the company.

The second operation referred to, viz. switching of carload freight by foreign companies, is as entirely different from the transfer of LCL commodities. The switching companies are independent railroads operating under their own charters; the service is performed by them; their tracks and facilities are not connected in anyway with the opera-

tions of the Illinois Central. There are two distinct movements of the freight car; first that by the Central to the point of junction with the foreign road; second, that by the latter over its own tracks and by its own power to the warehouse of the consignee. As seen above the Central has no authority under its charter to build the connecting line, or even to lease it after it is built. Its rights cease when the car cross the switch separating the two roads and after that its relations become ultra vires. Accordingly, the second railroad cannot act ^{its} as the agent, as the transfer company may, and the charge for the service must be pro-rated between the two companies. The situation is exactly the same as where part of the shipment is moved over a subsidiary line. Although no formal division of the tariff is made in the copy filed with the Interstate Commerce Commission, nevertheless it is necessary that some distribution be made in the company's office. In the case of the switching road the division may be considered the charge made for the service.

Thus, the Illinois Central seems justified in deducting from its statement of gross receipts subject to the charter tax the expense of switching cars to and from consignees when the same are located off of its tracks. This, of course, does not apply to switching done on its own rails.

II Passenger Revenue.

The provisions of the Interstate Commerce Commission Classification may be applied without difficulty. So far the State has paid little attention to passenger revenue and the only point at issue between it and the railroad relates to advertising mileage.

For a number of years it has been customary for the Illinois Central to issue what is termed "advertising mileage" or free transportation for a specified mileage, in return for advertising in newspapers, magazines, etc. Since the passage of the Hepburn Act of 1906 this has

been prohibited in interstate business and its use has been greatly restricted even in states allowing free transportation.

The principle involved is simple. Since the advertising mileage is given the newspaper and periodical companies in return for advertising which otherwise would have to be paid for in cash and is usually in proportion to space the mileage cannot be regarded as free transportation, but rather as transportation in kind. If this practice were not followed the railroads would pay for their advertisements in money as they now pay for supplies and the newspaper employees would pay the usual fares. Advertising is one of the expenses of the road and the arrangement in question, although sanctioned by custom, makes a deduction from gross revenue for expenses. Therefore, where advertising mileage is still used by the Illinois Central a fair cash valuation should be placed on the same, presumably ^{the} ordinary two cent rate, which amount should be credited to gross revenue, either "Passenger Revenue" or "Miscellaneous", and charged to "Advertising", Traffic Expenses. ¹

3 Excess Baggage Revenue.

No comments are necessary on this item.

4 Parlor and Chair Car $\frac{1}{2}$ Revenue.

Under the Supplement to the Classification of Operating Revenues adopted by the Interstate Commerce Commission this item is classed under Outside Operations.

5 Mail Revenue.

There should be charged to this account the net amount received from the Federal Government.

6 Express Revenue.

1 Cf. Decision No. I.C.C. It may be noted that there is some difference of opinion as to this item, some railroads asserting that the mileage is free transportation and others that it is not.

114

The Interstate Commerce Commission's account of revenue included under this head is: "This account includes amounts earned by a carrier for transportation and for facilities on trains and at stations incident to the transportation of express matter, but including the separate rents of offices at stations."¹ This ruling provides for inclusion of only the actual payments made by the Express Company to the railroad and this has been the practice adopted by the Illinois Central since the year 1877. That is the American Express Company makes a fixed-amount specified payments to the Central for the use of its trains and stations and that is the amount included in the statement of gross receipts.

The State, on the other hand, contends that the Express Company in carrying on its express business is merely the agent of the railroad and since it is the presumption that the Illinois Central cannot delegate powers authorized by its charter of 1871, thereby escaping the gross receipts tax, it further contends that the entire gross receipts of the American Express Company earned on the charter lines of the Central, ^{merely} not the payments to the railroad, should be included in the statement of earnings subject to the tax.

In the preceding pages it was stated that the duties of the Illinois Central might be divided into two classes; common law or mandatory and bailee or optional. It was further stated that, presumably, the common law functions of the road could not be delegated in a way so as to evade the gross receipts tax, i.e. the tax was a perpetual burden upon such operations carried on over the charter mileage irrespective of ownership. The optional functions, however, become subject to the charter tax when performed by the Illinois Central or directly delegated by it to an agent, but would not be so subjected when performed by foreign parties not acting as agents of the railroad and merely receiving the use of lease of certain property. In such case the leasehold payments alone are subject to the tax.

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discussion of the problem. It is shown that the
problem is equivalent to a problem in the theory of
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groups.

The question is What are the functions of an Express Company?

The legal and practical operations of the American Express Company on the charter mileage may be described briefly as follows:-

- (a) The collection of merchandise from shippers and delivery of the same to station room leased from the Illinois Central R.R. The collection and delivery being carried on by the company's own officials in its own conveyances.
- (b) ~~Transportation of the merchandise in a car leased~~ Loading of a special car ~~belonging to the railroad~~ but set apart for the special use of the express company with the merchandise. This work is performed on the railroad's station platform by the express company's employees with occasional assistance from railroad employees.
- (c) Transportation of said merchandise in the special car under the direction of the express company's agents. The car is handled by the railroad, but the express manager has entire authority over the contents of the car and the express company assumes liability to the shipper for loss or damage. The Express Company pays the railroad either a fixed amount or an amount depending upon contents of car or some other arrangement.
- (d) Unloading of car at receiving terminal. Reverse of (b).
- (e) Delivery of merchandise to consignee. (Reverse of (a)).
- (f) Express Company receives compensation from shipper, insures the merchandise, assumes entire charge of transportation and otherwise acts as Common Carrier.

The Supreme Court of the United States in the Kentucky Case¹ has decided that an Express Company is a Common Carrier and is not merely the agent of the shipper. It has further held in the same case that while express business is a proper function of a railroad and, inferentially, may be performed by it directly, nevertheless a railroad company is not a Common Carrier of express companies, i.e. it is not compelled to handle the business of any or every express company demanding the use of its trains and can lease its facilities to an express company in the same way that it leases its roadbed to a lessee for joint occupancy.²

From the classification of duties pertaining to an express company

it seems ~~clear~~ that we may divide the work into ~~four~~ ^{four} parts; (a) the collection and delivery of merchandise; (b) loading and unloading of car at railroad station; (c) transportation of merchandise in car; (d) insurance and guarantee of prompt delivery. (c) is a strictly common law function of a railroad. A railroad is chartered and constructed to carry passengers and freight between terminals and so long as it continues to exist it must carry for all whatever kinds of goods it gives itself out to be a common carrier of. By general custom a railroad now offers to carry, under certain, restrictions, practically every ^{kind of} article in ordinary use.

The insurance of goods, (d), is also a common law function of a railroad, although it may waive and commonly does waive this feature by provisions in its bills of lading. This feature is optional with the shipper.

The loading and unloading of merchandise at station is not a strict common law duty of a railroad carrier, but it has become customary for the railroads to load themselves all LCL freight. It is entirely probable that the courts would ~~not~~ hold this service to be a common law function of railroads, at least in the case of merchandise shipped in small lots.

This leaves merely the first class of work, the collection and delivery, as something which is not a clear commonlaw function of a railway. Most English roads and some American do ~~actual~~ collect and delivery merchandise freight and it is the common presumption that railroads could undertake this part of transportation without special powers. While the courts have never definitely decided the point, nevertheless, we may take it for granted that the Illinois Central Railroad has authority under its charter of 1851 to undertake the collection and delivery of merchandise freight, as it sometimes does the delivery of CL or transfer freight.

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Taking this last assumption for granted, as is reasonable, the question is resolved into the settlement of two points: (1) Is the collection and delivery of express a function that the Illinois Central R. Railroad may delegate to the American Express Company and thereby exempt gross earnings received from the same from special taxation? (2) If it may do so, is the present compensation an adequate return for the common law functions of the railroad relating to express business?

Before answering the first question it is necessary to examine briefly historical conditions ^{relating to express business}. The Adams Express Company, the oldest of the express companies, was organized and commenced operations in 184 . As early as 1838 Mr. had carried express packages between certain points in New England and during the succeeding twelve years what is now express business had obtained a fair degree of importance in that territory. In 1850 the Adams Express Company handled express service on a few New England lines and its operations extended as far west as the Pennsylvania R.R. However, express operations were unknown ~~are~~ in Illinois and presumably the Legislature of 1851 was not aware that such service was being performed entirely distinct from other transportation functions. The charter of the Illinois Central ~~makes~~ distinct provision for the carriage of merchandise, which was then regarded as the most profitable, if not the most important function of a steam railroad. As in the four years from 1851 to 1855 the importance of the express business steadily increased and in the latter year the Adams Express Company was authorized to use the facilities of the Illinois Central Railroad on payment of prescribed compensation. Since then an express company, at first the Adams and later the American, has operated express business on the Central with compensation for the use of stations and equipment. From 1855 to 1909 the net payment by the

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Annual Report, Illinois Central R.R. Co., 1855.

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Express Company to the Railroad Company has been the only amount included in the statement of gross receipts of the latter and subject to the payment of the gross receipts tax.

If a railway company were chartered to-day with a provision for a gross receipts tax it is almost certain that the courts would hold that gross receipts of the express company received from operations off the rails of the railroad company would not be subject to the tax since the common practice is to farm out the express business to an agreed compensation. A different interpretation might well be made in the case of a company incorporated when express business was not the customary function of a separate corporation. Such a decision, while slightly technical, would not be manifestly unfair. However, with circumstances as they have been it would be slightly more reasonable to regard the off-rail business of the Express Company as distinctly separate from the charter obligations of the railroad. The weight of historical evidence is almost equally divided between the two views. The practice has existed for some fifty five years and has never been questioned. No attempt has been made to defraud the state since the existing arrangement was introduced as soon as the road was placed in operation at which time the charter mileage was the only mileage operated. For these and other less important reasons the writer believes that it would be unfair to the railroad to force it to pay an a tax on the off-rail operations of the American Express Company.

This argument might be further substantiated by the fact that the American Express Company pays the usual local taxes on property in towns traversed by the Central. If the express business were considered part of the Illinois Central's charter functions this property would, necessarily, be exempted from such taxation as the charter provides. There is ground for believing that such an arrangement might really decrease the, rather than increase, the Illinois taxation of that company

The second question is by no means easy. It may be assumed that the American Express Company is paying the Illinois Central R.R. full compensation for the actual transportation of its express merchandise and for the station facilities furnished it. On the other hand, ~~that the railroad should receive a fee if the railroad handles the express business itself, or at least the loading, unloading and supervision of transportation---these duties might be regarded as its common law duties---~~ its revenue would be much larger because the work performed would be much larger and, naturally, it would demand greater compensation from the express company. If this were not the case the latter would endeavor to turn this work over to the railroad rather than retain it itself. In a rough way the expenses of the American Express Company in loading the express, paying its messengers, unloading the cars at receiving point, expense of station offices and perhaps a part of the expense of supervision would represent the difference between what the railroad is now receiving and what it should receive if it handled the business between station platforms itself.

Since these functions of storage at stations, loading and unloading, care of merchandise in transit, etc. are common law functions commonly performed for other merchandise LCL freight it is a reasonable presumption that revenue from this business is subject to the charter tax. An amount equivalent to these expenditures, should, therefore, be included in the statement of gross receipts and seven per cent paid thereon. Naturally, this would be paid by the railroad company. On the other hand such property of the American Express Company as is used for station and car work should be exempt from local taxation. Otherwise, there would be a violation of the charter provisions.

7. Milk Revenue (On Passenger Trains).

There is no dispute in regard to this item.

8. Other Passenger-Train Revenue.

There is no dispute in regard to this item.

9. All receipts from switching done on the rails of any part of the Charter lines should be included in this statement. Where switching service is done by locomotives of the charter lines off of the company's charter lines no revenue should be included, with the exception that a charge should be made for use of equipment. (Cf. Hire of Equipment, item).

Where cars or locomotives of the Chicago, Madison and Northern, the South Chicago, the Blue Island, the Riverside and Harlem or the Kensington and Eastern or other subsidiary roads use portions of the charter track or are handled by charter motive power an appropriate charge should be made for the service or else the gross receipts $\frac{1}{2}$ received from the shipment should be pro rated between the charter and non-charter lines. This principle applies merely to switching and yard service distinct from lease of terminal or station facilities. For the argument regarding this rule see Freight Revenue, item 1, sub-item c. (Cf. Item 21, Joint Facilities Cr. and Hire of Equipment, Item)

10. Special Train Service Revenue.

All revenue derived from the operation of Special Revenue trains should be subjected to the tax. Any modifications or additions outlined in other items should be adhered to.

II REVENUE FROM OPERATIONS OTHER THAN TRANSPORTATION.

The general rule outlined in the first part of this chapter applies to most of the items under this heading. Originally most of the functions covered by the term "other than transportation" were not common law functions, but at present it may be presumed that the courts would now take a much broader interpretation. Consequently, it seems

clear that all revenue from items 12, 13, 14, 15, 16 and 19, and possibly 17, should be subjected to the charter tax. The argument is comparatively simple. These operations, with slight exception, are carried on entirely by the railroad company as strictly incidental to its railway business and the only authority it has to conduct the same must be under its charter. Moreover, with certain exceptions referred to later, it is doubtful whether it could subcontract these duties to an outside party and thereby avoid payment of the tax.

A distinction should be made between operations relating directly to freight and passenger business of the company handled by way-bill or ticket, e.g. storage of baggage, storage of freight and car service, and the leasing of certain space or the right of way, station floor or in the trains, e.g. station and train privileges, parcel-room receipts, etc.

In the first instance the service is performed by the carrier by means of its own agents. It would be impracticable, or at least it is not customary, to lease station space for the storage of baggage with the understanding that the lessee should store all baggage and receive a specified return. The baggage, freight or cars (in case of car service) are under the control of the company from the instant that the article is received by its agents and remains under its control until the consignee or his authorized representative obtains legal possession. It is essential to the proper handling of business that storage facilities be provided and those facilities must be on the company's right of way in immediate connection with its freight or passenger stations. The service in question, therefore, may be considered an integral part of the transportation of the traffic and any party exercising the functions must act as the agent of the carrier. Accordingly, the total authorized charge made the shipper or passenger represents the gross revenue subject to taxation and, under present arrangements, any delegation of such duties should be regarded either as an attempted viola-

tion of the charter or else delegation of common-law duties to a party in which case either the agent or the principal is liable for payment of the seven per cent tax.

The second case, i.e. special facilities furnished passengers, is governed by a different principle than that just described. In the first place station and train facilities of the kind in question, e.g. sale of fruit on trains, sale of newspapers on trains and at stations, checking of hand luggage, royalties on weighing and vending machines, etc., are not common law duties of a railway carrier and and could not be considered such by any stretch of fancy. For instance, fruit and candies are sold by a concessioner in the Champaign station. Half a block from the station there are four lunch counters or fruit stands and the advantage of an extra stand in the station is only a slight convenience to passengers. It would be almost preposterous to expect any court to issue a writ of mandamus compelling the Central to run a lunch stand under those circumstances.

Secondly, the proprietors of the places in question, as a general rule, rent certain space at the station or on the trains for their own use. There is no difference between the Illinois Central renting a part of its right of way for the erection of a grain elevator, the building of a lunch counter or for garden purposes than leasing room in its station for fruit or lunch stands or authorizing newsdealers to sell papers on its trains. When an operation is carried on by a lessee the party is acting not under the charter of the Illinois Central R.R. Co. but either under the commonly authorized powers of any citizen or under special charter received from the community.

Thus, where space or concessions are granted private parties for such privileges as those mentioned none of the revenue received from the operation should be subjected to the tax. However, the rental or payment made by the lessee to the lesser should be included in the statement of the latter's revenue, since it is received for the lease of

facilities authorized by the charter, which from the time being are not used for strict railroad purposes. In other words, the revenue is a strict incident of railway operations.

Exception to the above rule must be made in cases where the special facilities are handled directly by the company through its agents or indirectly through parties acting as the representative of the company. For example, if the company should pay an employee to conduct a lunch counter or if one of its agents checks parcels and turns over the receipts to the company, then the revenue is part of the company's revenue subject to the tax. The same principle should hold true where the business is let to a private party for an agreed percentage of the income or even a fixed amount. In such a case the company receives the profits and the amount paid the individual is an expense, not a deduction from revenue. The distinction, in other words, is this: Where facilities are leased or rented only the rental should be subjected to the tax; where the operation is carried on by the company and the ^{gross} receipts accrue to the company's treasury the total gross revenue is subject to the tax.

There are several general objections made to this principle, but they need not be answered specifically in this place since they have already been discussed in an earlier part of the chapter.

We may now refer to the various items.

12 Station and Train Privileges.

Rental received for the granting of station and train privileges should be subjected to the tax when the concession is a lease of facilities. When the duties are performed by the carrier or its agents the revenue from which accrues to its treasury, then the total receipts should be subjected to the tax.

13. Parcel-Room Receipts.

Compare item 12.

14. Storage--Freight.

Gross revenue from this item should be subject to the tax.

15. Storage--Baggage.

Gross revenue from this item should be subject to the tax.

16. Car Service.

Gross revenue from this item should be subject to the tax.

17. Telegraph and Telephone Service.

Gross revenue from this item should be subject to the tax.

Since the amount involved is comparatively small and would not be materially affected by any change or alteration of the Interstate Commerce Commission Classification that ruling may be adhered to en bloc.

18. Rents of Buildings and Other Property.

The principles stated on pages 121 and 122, 123 may be followed in the determination of amounts received under this heading. As decided by the Illinois Supreme Court in *Gilkinson vs. Brown*, the mere fact that a building is located on the right of way of the Central neither exempts it from local taxation nor subjects revenue of the lessee to the gross receipts tax, provided, of course, that the same does not belong to the railroad and is not used for railway purposes. No deduction from revenue should be allowed for repairs to buildings or for any other expense. (It should be noticed that this item covers only such rents as are received from buildings not classed as "Investments" or "Outside Operations".)

19. Miscellaneous.

Gross revenue from this item should be subjected to the seven per cent tax under the rulings established for the other items in this group of items.

20. Joint Facilities Revenue--Dr.

21. Joint Facilities Revenue--Cr.

Items 20 and 21 may be omitted from the statement of revenue

subject to the charter tax. Where the Illinois Central uses joint facilities other than those authorized by the charter any revenue received from the same is not subject to the tax. On the other hand where its own facilities are constructed under authority of the charter revenue from the same should be credited under the head "Rent of Tracks and Property".

III. INCOME INCIDENT TO OPERATIONS.

This group of items covers revenue of the railroad received from such operations as are connected with the use of its equipment and permanent way, but do not involve the movement of passengers or freight or operations directly connected therewith. Since each of the points involves principles somewhat different from the others it will be necessary to discuss each one by itself.

22. Rent of Tracks and Property.

Under this head is included revenue from property, other than equipment and other than "Buildings and Other Property" (i.e. property used in connection with operations and the expense of maintaining and operating it can not be separated from the expense of that portion used by the carrier) when the same belongs to the Illinois Central Railroad Company--Charter Lines. For purposes of discussion this item may be divided into three parts; (a) Rent received from other railroad companies for the use of the Illinois Central's tracks and stations; (b) rent paid for the use by non-railway interests of miscellaneous real estate and buildings; (c) remuneration given by subsidiary companies for use of Illinois Central terminal and station facilities.

(a) Ever since the early part of May, 1852, the Illinois Central has leased the use of its tracks, stations and terminals to various other companies, principally the Michigan Central, Baltimore & Ohio, the Big Four and Burlington. In general the leases have been of two kinds. In the first place the Illinois Central gave the lessee the use

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of specified facilities upon the payment of either a fixed or continuing money rental. At times the lessor has provided for the entire expense of maintenance; at other times the lessee has met part of the expenditure. In either case the service of the Central was confined to the furnishing of the permanent way and buildings. Exception should be taken to the arrangements for use of stations. The Central Station and some other buildings have been used jointly and the customary arrangement has been for the lessee to share the expense of operation other than maintenance and interest. Various other arrangements have been made, but the difference is largely in details.

The second form of lease has corresponded to the use of stations. The Central has not only furnished the permanent way, but has also furnished all or a part of the motive power and has even gone so far as to assist in loading and unloading the freight. The existing lease with the Big Four illustrates this arrangement.

In both instances the charge is made that the entire revenue of the lessee derived from operations over the charter mileage should be subjected to the special tax. The line of argument is this. The right of way was granted the Illinois Central R.R. Company either by the charter or was obtained through eminent domain or purchase authorized by that instrument. The company was empowered to operate ^{said} ~~the~~ railroad and it is the assumption that the tax provision is a perpetual lien upon that particular property. Since that is so, all railway operations performed on the charter mileage must be performed under the authority of the charter and the gross revenue from the same is subject to the charter tax. In other words when the Michigan Central runs a train from Central Station to Kensington under an arrangement made with the Central its train for that distance is not a Michigan Central train, but rather one belonging to the Illinois Central. Consequently the entire revenue from that train apportioned to that stretch of track according to correct methods of accounting, is a part of the gross revenue of the lat-

ter company. To credit to the latter merely the net return for the use of the tracks is to credit a net rather than a gross revenue, since the deduction of operating expenses ^{leaves} ~~ix~~, presumably, net earnings applicable to interest on the investment.

This argument has considerable plausibility, especially when applied to such a lease as that of the Big Four. Nevertheless, for certain reasons we must regard it as unsound from the strictly theoretical standpoint, to say nothing of being unfair to the company practically. In the first place, the Illinois Central was chartered to transport traffic from Chicago to Cairo and from Central to Dubuque and between intermediate points. Where ~~the road is~~ running or trackage rights are leased to other companies the lessee uses them as strictly incidental to other operations which are not authorized by the charter of the lessor, e.g. the Michigan Central operates a line from Chicago to Buffalo, ~~which is outside any~~ which the Illinois Central could not do under its charter; the use of the latter's tracks from Kensington to Randolph is incidental to the larger operation. ^{by lessee companies} Local business is not done ~~and~~ if the lease were abrogated the traffic of the former lessor would not be augmented. Thus, the lessee is not the agent of the lessor and the latter is not responsible for the actions of the former. The mere fact that the lease is made for a railway operation does not alter the character of the agreement. ~~According~~ According to the principles stated earlier in this chapter and accepted by the courts the provisions of the charter apply to only those actions carried on under authority of the charter; that is, the charter provisions are not inalienably connected with the right of way obtained by the road nor applicable to operations performed on that right of way which are not authorized by the charter. Therefore, the mere fact that lessee railroads carry on certain railway transactions on the right of way or even on the permanent way of the Illinois Central does not make those transactions the transactions of that company. As stated above, these operations are incidental to the

that company. In its simplest form the lease is as follows:- The Illinois Central owns certain pieces of property in the form of tracks, buildings, etc. authority for the operation of which comes from its charter. A freight and passenger service is conducted over the same ~~in~~ satisfying in full the requirements of that instrument. Having a surplus of facilities of the kind mentioned it leases them to outside parties who perform various services on those facilities, in the point at issue the operation of railroad trains, the authority for which comes from state or city franchises granted those companies. These incidental operations may or may not be performed by the Central. Where they are performed the total revenue derived from the same accrues to its treasury and subject to the charter tax. Where they are not performed it receives a rent for the use of its facilities and this is the only amount subjected to the tax. In other words, the lease of trackage or running rights differs in no respects from the lease of buildings or privileges.

It is taken for granted that the lease of tracks and property is a bona fide lease for operations not authorized by the charter. If this is not the case or if the arrangement appears to be an attempt to evade provisions of the charter or if the lessee acts as agent of the lessor the rule stated above should not hold true. For example, if the Central should lease certain tracks belonging to the charter lines, say its facilities in Ozire, with the understanding that the lessee should do a local business then it is clear that the handling of that local business is the act of an agent, since it is authorized by the charter, and should be subjected to the charter tax. Moreover, where a running right covers considerable distance, e.g. from Chicago to Kankakee, the question may be raised whether the lease is strictly incidental to the other operations of the Central and the transactions of the lessee might be considered those of an agent. This, however, would be a matter for the courts to decide.

Leases to foreign railroads are not the only ones made by the Illinois Central R.R. Co. A number of its subsidiary lines use tracks and stations belonging to the charter road either through under provisions inserted in the general lease by which those roads are operated by the Central or through tacit agreements with the latter. If we recall the two fold functions of the Illinois Central R.R. Co., i.e. owner and operator of the charter mileage and lessee and operator of subsidiary mileage, it is easy to see how much confusion could result in the use of joint facilities. For instance the C.M.&N. uses the Central Station, the CH&W uses charter tracks and buildings at Champaign, Decatur and Clinton. Under existing arrangements no charge is made for these charter ^{road} facilities, but the state questions the right of the Illinois Central R.R. Co. as owner of the charter mileage to lease the same or permit their use by subsidiary lines without the usual compensation exacted from foreign companies.

Since the charter and non-charter lines, for the purposes of the tax, are foreign corporations, the solution of the question is comparatively simple. The argument has already been gone over in considerable detail and need not be repeated here only be summarized here.¹ For purposes of the charter tax the charter and non-charter lines are foreign corporations. Foreign companies are charged rental for the use of station, track and yard facilities, and, consequently, subsidiary companies should be charged for similar service. This revenue, though perhaps a bookkeeping account, is revenue of the charter lines and should be subjected to the charter tax.

23. Hire of Equipment.

This item, as the preceding, is divided into two phases; (a) equipment loaned or exchanged with foreign companies; (b) equipment belonging to the charter lines furnished subsidiary roads.

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The first point is again divided into two parts; first, should any income from rent or exchange of equipment be subjected to the charter tax; second, what equipment should be regarded as charter equipment; third, if any income is subjected to the tax payment how should the amount be ascertained. At present no revenue from hire of equipment is included in the statement of gross receipts submitted to the Governor.

This position of the company is hardly tenable. A railroad, in the physical sense, is made up of permanent way and equipment. Both are necessary to its operation; both are property of the company. (Cars leased excepted) Gross revenue derived by the Illinois Central from the use of equipment and permanent way is subject to the tax. Revenue received from the rent of real estate and buildings belonging to the charter lines is also subjected to that tax. To include one element in the physical make of the railroad and exempt the other is illogical and should not be admitted. Accordingly, any revenue obtained from the use of equipment pertaining to the charter road should be subjected to the charter tax. This principle cannot be denied without contradicting the premises upon which taxation of revenue from buildings, etc., is based.

This being the case, the question naturally arises, What equipment belongs to the charter lines? Is it all cars and locomotives owned by the Illinois Central R.R. Co.? Is it those actually used on the charter lines? Or is it something else? If all equipment necessary for the operation of the subsidiary lines were owned by those companies there would be no difficulty about this question, but such an arrangement does not exist. Instead the Illinois Central R.R. Co. owns the major part of the system equipment. With slight exception, the various subsidiary companies own only such rolling stock as it possessed when leased by the Central. In fact the leases state that the lessee shall furnish such equipment as is necessary for the proper working of the lessor's property. These ^{or locomotives} cars are used on various divisions, sometimes

a charge is made the lesser company; sometimes not. An arrangement such as the one mentioned is necessary since the leased ~~less~~ company is considered defunct during the life of the lease and, consequently, is not ordinarily in a position to provide its own equipment. Consequently, it is not only convenient but legally advisable that the Illinois Central R.R. Co., as lessee of the subsidiary roads, should retain title to all equipment purchased subsequent to the lease. The issue is whether the Illinois Central R.R. Co. owns this equipment in its function as owner of the charter lines or as lessee of the subsidiary lines or both.

The State claims that the former position is correct, i. e. this equipment belongs to the charter lines. Certain facts seem to bear out this assumption. Most of the locomotives and practically all the cars are used at one time or another on the charter lines and most of them return to the Burnside shops for repairs. In the second place, the equipment is charged to the Illinois Central Proper and expenditures for the same have come from income or receipts from sale of stock or mortgage bonds of the charter lines. Third, the furnishing of equipment is done to increase the traffic of the charter lines, just as the System sends freight cars off of its lines to develop traffic.

As opposed to this we find that many of the locomotives and passenger cars ~~has~~ charged to the Illinois Central Proper are assigned permanently to non-charter divisions. In other words, the equipment is used for the benefit of the system as a whole, not that of the charter road. When a locomotive or passenger car remains on one division for a considerable period is it reasonable to suppose that it is a permanent addition to the equipment of that part of the system and does not give a direct benefit to the company nominally owning it. Furthermore, since 1903 the owned lines include some nineteen hundred miles in addition to the original mileage. Finally, equipment belonging to the

Illinois Central R.R. Co. is taxed in Illinois and other states. If it belonged to the charter road this would be illegal. In brief, this argument is that the equipment of the Illinois Central used on subsidiary lines ~~belongs to~~ is owned under authority conferred not by the charter of 1851, but by the general law of 1855, and is not, therefore, subject to the provisions of that act just as roads leased or purchased since the latter date are not subject to those provisions.

Now there is no question that the charter lines can own whatever equipment is necessary or advantageous for the operation of the same, even though this equipment may occasionally be used on other roads. Thus, equipment that is used primarily on the original mileage may be regarded as charter equipment. It is not clear, however, that the Illinois Central, acting under the authority of its charter alone, can purchase equipment to be used permanently on other railroads, that is ~~become~~ ^{out} go into the business of hiring/rolling stock. But since the rental of this kind of property is a direct benefit to the charter road it might be considered within the company's powers. On the other hand, a strict construction of the charter in line with I.C.R.R. vs Irvin would, undoubtedly, lead to an opposite conclusion.

The matter of taxation should be of considerable influence. Where rolling stock is located off of the charter lines permanently and is subjected to local taxation the presumption is clear that that equipment does not belong to the charter lines. If it does it should be exempt from such taxation, at least in Illinois.

For passenger cars and locomotives the matter of situs is not difficult. With a few exceptions engine runs on the charter lines are co-terminous with its boundaries and it would be reasonable to assume that the locomotive belonged to the division where it was in common use. This same condition would be true, though to a less extent, of passenger cars. However, no such distribution of freight cars is possible.

They are seldom confined to one division or even to one system, while the demands of the various parts of the railroad for cars varies so greatly during the year that it is almost ^{out} of the question to make an assignment, especially of particular cars. Moreover, differences in time of loading and unloading allowed, extent of repairs, etc. prevent cars being allocated according to car mileage.

Sufficient has been given to show the extreme difficulty of allocating cars to the charter and non-charter lines. However, unless we assume that all cars and locomotives owned by the Illinois Central R.R. Co. belong to the charter lines--which, as suggested above, is hardly tenable--it becomes necessary to make a division of the rolling stock and the following plan is given as a possible solution.

- (a) All locomotives permanently assigned to the charter lines to be regarded as charter equipment.
- (b) Locomotives used on different divisions to be divided according to the division on which the major portion of their time is spent.
- (c) All passenger cars permanently assigned to the charter lines to be regarded as charter equipment.
- (d) Passenger cars used on trains running over charter and non-charter lines to be pro-rated according to length of run on respective divisions.
- (e) Freight cars permanently assigned to the charter lines or normally used there or used for shipments normally originating or terminating there to be assigned to the charter road.
- (f) All other freight cars to be pro-rated on the following basis: Average number of all cars (foreign and domestic) on charter lines to be found. Excess of foreign-cars domestic cars on foreign lines over foreign cars on system lines to be divided between charter and non-charter lines in proportion that the total average number of cars on system bears to average number of cars on charter lines. (Deficit to be treated the same way) (f) - (e) equals the equipment charged to charter mileage.

If desirable cars with certain numbers or of a certain series could be assigned the charter lines in accordance with the above divisions.

The third consideration to be discussed relates to the payment for use of the cars. Under existing per diem arrangements there is a free interchange of cars between the Illinois Central and foreign systems. Account is kept of the ^{system} cars while on foreign lines and a charge of 2¢ per diem is made for their use; a similar charge being made the Central by other roads for the use of their cars. In practice a considerable proportion of these payments are cleared between the various roads without the payment of cash. (The arrangement is somewhat similar to bank clearings) Prior to July 1st, 1908, the total payments of the railroad were balanced against the total receipts and the difference carried as a credit or debit balance to income or operating expense, as the case might be.¹ From July 1st, 1907 to July 1st, 1908, the account was handled through the Clearing Account--Hire of Equipment. The certain allowances were made for depreciation, but with this exception the balance was "carried as a debit or credit, as the case may be, to Income Account as "Hire of Equipment."² Since July 1st, 1908, the Clearing Account--Hire of Equipment--has been eliminated and the "entire amounts of payments and receipts for equipment interchanged or otherwise acquired or let out for use being carried directly to the Income Account".³ The question is Which of these three methods should be regarded as correct in determining gross revenue of the Illinois Central.

From the standpoint of the railroad the free interchange of cars is primarily a convenience to the shipper and since all ^{freight} cars of the same type are practically the same it makes little difference whether it uses its own cars or those of a foreign road. Consequently the per diem charges are really a nominal payment. The net balance is the item which really interests the officers of the railroad. In fact a universal pooling of freight cars has been suggested, in which case the nominal ownership would be even less important than at present. Thus, it seems manifestly unfair to the road to assume that the total gross

receipts from per diem and car mileage constitute a part of its gross revenue. This appears especially unjust when that gross revenue is subject to taxation.

On the other hand, the Interstate Commerce Commission in its latest ruling ² has adhered to the strict accounting principle that all receipts of the corporation should be carried to income account without deduction of any kind whatever, while all expenditures should be carried to corresponding accounts on the expense side of the ledger. No one would dispute the theoretical correctness of this position and even from the purely practical standpoint it is probably justified by greater clearness in the accounts of the railroads.

Nevertheless, the fairness of such an arrangement when used in determining revenue subject to taxation may be questioned. As stated above, since the railroad is interested in having use of cars of particular kinds, not in the ownership of those cars, it is reasonable to regard the net car balance of the system as a whole, or at least the net balance against particular roads, as the real equipment loaned to other companies. Therefore, from the economic standpoint, such an arrangement represents the equipment revenue from which should be subjected to the charter tax.

On the other hand, there is the legal view that the cars are technically owned by the railroad and that each car is loaned just as a track or building is leased. Consequently, the gross receipts from the rental of such cars should be carried to revenue account. The fact that the company is forced to use cars of other roads is unfortunate, but any expenditure for the same is a charge to operating expenses, not a deduction from income.

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While the writer believes that such a conclusion is unjust the fiction of legal ownership is so strong that he is forced to believe the courts will cling to that contention, especially in view of the ruling of the Interstate Commerce Commission.

² I.C.C. Classification of Operating Revenue Expenses, Supplement, p.8

So far the discussion has related to cars of the Illinois Central R.R. Co. used off of the system. In addition to this use of equipment these cars, as referred to above, are used to a greater or less extent on non-charter roads and the state claims that a charge should be made on subsidiary roads in the same way it is made foreign companies. According to the reasoning advanced in case of company material hauled for subsidiary roads and terminal properties used by them it seems clear that this contention should be accepted. It is subject to the limitation, however, that equipment of the Illinois Central R.R. Co. includes only such equipment as properly belongs to the charter lines.

The preceding discussion may now be summarized:

- (1) Revenue derived from the lease, rental or use of equipment belonging to the charter lines should be subjected to the charter tax.
- (2) Such equipment should include all equipment owned by the Illinois Central R.R. Co. permanently located on the charter lines and a specified proportion of the remainder to be determined on some agreed basis.
- (3) Revenue derived from use of equipment may be either net balance in favor of company or else total receipts received from use of the same, without deductions of any kind.
- (4) In either case all equipment, revenue from the use of which is subjected to the charter tax, should be exempt from local taxation.
- (5) A charge should be made for the use of charter equipment by non-charter lines and revenue from the same should be treated in the same manner as other revenue from equipment.

24 Miscellaneous.

Items under this heading should be treated according to the general principles outlined in the preceding pages.

IV INCOME FROM INVESTMENTS.

This is perhaps the most important single point in dispute between the State and the Railroad. The situation is as follows:

At various periods from 1877 to 1909 the Illinois Central R.R. Co. has bought stocks and bonds of other corporations to be held for purposes of investment or of control. The money to purchase these se-

curities has come in part from the net income of the corporation, in part from the sale of stock and bonds of one kind and another. With slight exception these various investments have been made for the purpose of controlling subsidiary companies, and, as shown in Chapter I, the Illinois Central R.R. Co. now owns or otherwise controls practically all the outstanding securities of those corporations. The railroad property owned by them has been leased under authority of the Act of 1855. In fact, the purchase of subsidiary road securities has been made with the primary object of strengthening the control given by lease. According to the decision of the Illinois Supreme Court in I.C.R.R. vs. Irvin the charter of 1851 gives the Illinois Central no right to own or operate non-charter railroads--the authority for such leases as have been made comes from the general railway act of 1855---and the question is, therefore, whether the purchase of corporation stocks and bonds was authorized by the original charter. If such is the case it may be assumed that revenue from the investments is subject to the charter tax; if the contrary view be taken, i.e. the purchases were made under authority of the 1855 act, these investments should be treated in the same manner as leased or owned lines controlled under authority of that law. It is taken for granted that only such revenue as is derived from operations authorized by the charter is subject to the charter tax.

Before proceeding with the argument it is necessary to make a further assumption that the charter of the corporation permits it to hold stocks and bonds of other corporations. The purchases have been made on the ground that corporation securities are "personal estate", since right to hold such property is not authorized specifically. Such a construction of the term "personal estate" is questioned by many eminent legal authorities and certain decisions of the courts have seemed to favor that view. Should the state or Federal Supreme Court adopt this interpretation the points at issue will be completely altered.

Investment in corporation stocks and bonds would be ultra vires and the Illinois Central R.R. Co. would have no right to receive an income from the same. Consequently, there would be no revenue which could be subject to the charter tax.

Accepting the assumptions given above we are now in a position to compare the arguments pro and con on this question. The arguments in favor of a taxation of revenue from all investments may be summarized thus. The charter empowers the Illinois Central to construct a railroad, operate the same and to convey and hold "real and personal estate which may be needful to carry into effect fully the purposes and objects of this Act"¹ If the term personal estate covers corporations securities it seems evident that the company could invest in whatever stocks and bonds were needful to carry into effect "fully the purposes and objects of this Act". Minority or majority interest in foreign railroads would further the operation of the chartered lines and might be necessary for the proper management of the same. Consequently, investment in securities of such companies would come under the powers granted by the charter. While the charter does not authorize the construction of such lines it is not a necessary implication that purchase of the companies's securities is ultra vires. Such a contention is substantiated by the fact that prior to 1855 the Illinois Central purchased securities of the Ohio & Mississippi and Peoria & Oquaka railroads.

On the other hand it is argued that the extensive purchase of securities made since 1877 is not authorized by the charter of 1851, but by the general railways laws of 1855 and following. In the case of I.C.R.R. vs. Irvin the Illinois Supreme Court held that the charter did not authorize the construction of railroads other than the charter lines. Since the powers of a corporation must be construed strictly it is illogical to permit the company to do indirectly what it is not authorized to do by direct means. Moreover, since the various purch-

ases were made in connection with the lease of subsidiary roads it is evident that they were an integral part of the extensions and, naturally, would be authorized by the same laws as the leases proper. Most important of all, the Illinois Central R.R. Co. through its ownership of the stocks and bonds of the subsidiary companies virtually owns these companies and the income that it receives from the investments is really nominal. The Illinois Central R.R. Co. pays a certain rental to the subsidiary road, which in turn pays back the money to the lessee in the form of interest on bonds. At best this is a cumbersome arrangement and is clearly nominal. Now, if a simple method of organization were adopted, e.g. that followed in the case of the Purchased Lines, the lessee company could do away with its ownership of subsidiary company's securities. Under the new new conditions there could be no question of interest on investments since there would be practically no investment. In brief, the argument is that the investments of the Illinois Central are not authorized by the charter, but by the general railway laws of the state and the tax revenue received from such investments is virtually to tax the net income of subsidiary companies.

It is not difficult to choose between the two arguments. It is perfectly clear that the revenue derived from investments is merely a nominal revenue and, as stated above, represents the net income of subsidiary roads. Accordingly, to tax ^{the Central's income from the bonds} this-income is to tax the subsidiary companies. Since these roads have benefited in no way by the land grant and are not and cannot be exempt from ordinary state and local taxation it is manifestly unfair to impose this additional burden upon the company. At best, the right to tax the income derived from investments ^{would be} is due to a highly technical interpretation of the charter, while the enforcement of such a tax would result in a reorganization of the company whereby the holding of subsidiary securities would be eliminated.

The above statement applies to ownership of securities of subsidiary lines acquired since 1867. It would also apply to stocks and bonds of nominally independent corporations, e.g. Y&V or IS, which are really subsidiaries. Where the company obtains an income from investments in foreign corporations pertaining more or less directly to the charter lines, e.g. Chicago Union Transfer, it seems reasonable to include that income in the statement of revenue subject to the charter tax. However, the amounts involved are merely nominal and do not deserve attention except for the principle involved.

26 Interest on Money Loaned.

This item covers interest received by the company on cash loaned to banks, trust companies or individuals when the same was not needed for purposes of operation. As the demands of the corporation vary from day to day it is customary to keep on hand very considerable sums of money to meet current or uncurrent demands. At times the amount on hand totals several million dollars. This is usually loaned out to individuals or corporations either on time or demand and a small revenue derived from the same. The contention of the state is that all such revenue should be subject to the charter tax.

In analyzing this revenue we find that it belongs to the operation of the system as a whole, not to the operation of the charter road. If the argument relating to income from investments be sound this revenue might be divided into two parts; first that part belonging to the charter lines; second, the part belonging to non-charter lines. Perhaps a fair method of division would be to divide the receipts between the two parts in the proportion of gross revenue from operation. The amount carried to revenue should be the gross amount received, not the net balance.

27. Miscellaneous Income.

This should be treated in the same manner as item 26.

V REVENUE FROM OUTSIDE OPERATIONS.

Under this head come all operations conducted by the railroad not provided for in previous accounts, that is, those which are not connected with transportation by rail or are only indirectly incident thereto.

In its demurrer to the amended bill of Complaint the railroad takes issue fairly and squarely with the State on the principle that operations not pertaining to the railway operations of the charter line are not subjected to the tax.¹ In this group of questions, as in many others, the real issue is confused by the legal subtleties of the case and it is necessary to revert to fundamental principles to obtain a clear view of the situation.

In the introductory part of this chapter the following principle was advanced: Revenue from operations authorized by the charter of 1851 but not common law duties of the carrier should be subjected to the charter tax when they are carried on by the Illinois Central R.R. Co or by parties acting as its agent.² The assumption upon which this principle was made is clear. The only powers conferred by the charter were to build, maintain and operate a railroad from Chicago to Cairo and from Centralia to E. Dubuque. It was evidently the intention of the Legislature to subject to the levee tax all revenues derived from the operation of the charter lines and, therefore, the questions to be answered in regard to outside operations are; 1st, is the operation authorized by the charter? 2nd, is it performed by the carrier or its agent? 3rd, If performed by outside parties is it a common law function of the Illinois Central R.R.

The various items included in the Interstate Commerce Commission Classification of Revenues from Outside Operations will be taken up in order and their relation to the charter tax discussed according to the questions outlined in the last paragraph. Where operations are not carried on by the Central no reference to the principles need be made.

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The second volume of the edition of the *Dictionary* was published in 1774, and the third in 1775. The first volume of the edition of the *Dictionary* was published in 1773, the second in 1774, and the third in 1775. The first volume of the edition of the *Dictionary* was published in 1773, the second in 1774, and the third in 1775. The first volume of the edition of the *Dictionary* was published in 1773, the second in 1774, and the third in 1775.

The third volume of the edition of the *Dictionary* was published in 1775, and the fourth in 1776. The first volume of the edition of the *Dictionary* was published in 1773, the second in 1774, and the third in 1775.

The fourth volume of the edition of the *Dictionary* was published in 1776, and the fifth in 1777. The first volume of the edition of the *Dictionary* was published in 1773, the second in 1774, and the third in 1775.

The fifth volume of the edition of the *Dictionary* was published in 1777, and the sixth in 1778. The first volume of the edition of the *Dictionary* was published in 1773, the second in 1774, and the third in 1775.

The sixth volume of the edition of the *Dictionary* was published in 1778, and the seventh in 1779. The first volume of the edition of the *Dictionary* was published in 1773, the second in 1774, and the third in 1775.

The seventh volume of the edition of the *Dictionary* was published in 1779, and the eighth in 1780. The first volume of the edition of the *Dictionary* was published in 1773, the second in 1774, and the third in 1775.

The eighth volume of the edition of the *Dictionary* was published in 1780, and the ninth in 1781. The first volume of the edition of the *Dictionary* was published in 1773, the second in 1774, and the third in 1775.

27. Boat Lines.

The Illinois Central R.R. Co. performs no operation of this kind which relates to the charter lines.

28. Ferry Lines.

No operation of this character is performed by the Illinois Central in connection with its charter lines.

29. Harbor Terminal Transfers.

No operation of this character is performed by the Illinois Central in connection with its charter lines.

30. Electric Railways.

No operation of this character is now performed by the Illinois Central in connection with its charter lines.

31. Express Lines.

No operation covered by the Classification of Outside Operations coming under this head is performed by the Illinois Central R.R. Co in connection with its charter lines.

32. Cab and Omnibus Service.

All Cab and Omnibus services in connection with the charter lines are handled by private parties who are not directly connected with the railroad company and who are operating under municipal ordinances.

33. Sleeping-Car Service.

The question is presented whether receipts of the Pullman Car Company derived from operation of cars over the charter lines should be regarded as revenue of the Illinois Central and thus be subjected to the gross receipts tax.

First, There is no question whatever that the Illinois Central R.R. Co. has authority under its charter to own and operate sleeping cars. This road was one of the first to commence the use of sleeping cars and prior to July 1st, 1891, the Company managed this business itself. The only authority for such action came from the charter, since the general

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statutes of the state did not confer additional rights upon the company so far as the operation of the charter lines is concerned.

Second, At present the management of sleeping cars is carried on by the Pullman Car Company, which legally is not the agent of the railroad. It should be noticed that the furnishing of Pullman or sleeping car facilities is entirely distinct from the movement of the passengers. The Illinois Central R.R. Co. contracts with its passengers to transport them between points designated by their respective tickets. It makes no difference to the passenger whether the cars in which they travel belong to the carrier or are leased by it from outside parties, provided the accommodations are good. The latter is done at present in the matter of extra-fare service. When the railroad company provides equipment for the transportation of passengers to their destination it is performing its full legal obligation. For that service it collects the usual fares, which are entirely distinct from charges for berths or seats. The total receipts from this transportation service is credited to the charter lines and is subjected to the charter tax.

The furnishing of sleeping cars or Parlor and Chair accommodations is another matter from that mentioned in the preceding paragraph. In essence the railroad states thus to its passengers: We will carry yourself and baggage in ordinary railroad cars for a specified rate. That is all we are legally bound to do. Now for your own convenience we will substitute for part of our coaches equipment with accommodations superior to the average. If you desire to use the same you must pay an extra charge to the parties owning the cars. In law the railroad is liable to the passenger for damages resulting from the operation of its trains; it is not liable for damages resulting from accidents, etc. due primarily to the management of the sleeping car when the same is owned by another party. Virtually, the sleeping car is a hotel on wheel attached to the train which is governed by the same rules as a hotel.

If the Illinois Central finds it advantageous to perform this special or optional service itself it must do so under the authority of its charter, just as it handles merchandise under that charter. Consequently, when it does so all money received from that service is subject to the charter tax. This principle was accepted by the company and so long as it operated its sleeping cars itself it paid the tax.

If the company owned or leased the cars and then farmed out this service to another corporation for a lump or contingent amount, then this second party would be acting as agent of the railroad and the total or gross revenue derived by the ~~latter~~^{former} should be subjected to the tax.

But the present arrangement with the Pullman Company is different from either. As stated above, the Illinois Central agrees to haul the cars of the Pullman Company free of charge in return for the privilege of having its passengers ride in them. To that extent the cars are the cars of the Company. However, when the Pullman Company charges an extra fare for a strictly optional service, it is doing so under a special charter granted it by the state of Illinois and not as agent of the railroad, either actually or legally. As in the case of train privileges it nominally leases space in the equipment of the company for a special use and charges for the same. This line of reasoning has already been gone over more than once and it is unnecessary to continue it further. It may, therefore, be accepted that extra charges made for the use of sleeping car accommodations should be subject to the tax only when the service is performed by the carrier or by its recognized agent. This is not done at present and, consequently, no revenue is subject to the tax, since the Pullman Company pays the railroad company nothing for the handling of its cars.*

* It used to be the custom for the railroad to pay the Pullman Company so much per mile for the use of the Pullman cars, but this practice has been abandoned on all important divisions.

In the discussion it is assumed that the running of sleeping cars is not common law function of a railroad. At present this is perhaps not strictly true. The courts might compell a carrier to place sleepers on its trains, but there is no record of such a case. It is certainly true that the operation of sleeping cars was not a common law duty of a railway carrier at the time the Illinois Central was chartered.

34. Parlor and Chair Car Service.

The line of argument is the same as in the preceding item.

Where the service is performed by the railroad the extra charge should be subject to the charter tax.

35. Dining and Special Car Service.

Apparently exception to the general rule should be made in the case of dining car service so far as the revenue comes from the sale of food. Furnishing its patrons with food and drink is not commonly considered a transportation matter and, strictly speaking, it is not. However, when a carrier does undertake this service it does so as an incident of its other duties and acts under its railway charter. To that extent the furnishing of food when performed is as much a part of its service as the providing of more comfortable chairs or of sleeping apartments. Any distinction between the two is one of degree, not of kind, and so long as the extra charges resulting from special facilities are subject to the tax so should revenue derived from the sale of food and drink, provided, of course, that the service is performed by the carrier or its agent. Nor is it any more proper to deduct the cost of the food than to deduct the extra expense incurred in running parlor cars.

36. Electric Light and Power Plants.

No service of this character is performed by the Illinois Central R.R. Co. in connection with its charter lines.

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37. Gas Producing Plants.

No service of this character is performed by the Illinois Central R.R. Co. in connection with its charter lines.

38. Canals.

No service of this character is performed by the Illinois Central R.R. Co. in connection with its charter lines.

39. Grain Elevators.

As in the other cases coming under Outside Operations revenue derived by the charter lines from the operation of grain elevators should be subjected to the tax when the operation is performed by the carrier. When the building is owned by the railroad, but leased to an outside party which is acting entirely independent of the transportation company the rent for the use of company facilities only should be subjected to the tax. (cf. item, Rent of Buildings and Property, p.)

40. Stock Yards.

The argument is the same as in the case of Grain Elevators.

41. Commercial Telegraph and Telephone Lines.

No service of this character is performed by the Illinois Central R.R. Co. in connection with its charter lines which would come under the heading Outside Operations.

42. Hotels and Restaurants.

The principle involved in this item is the same as in items Train and Station Facilities, No. 12, and Dining and Special Car Service, No. 35. Where a rent is charged for station room, ground or other facilities that amount should be credited to Rent of Buildings and Other Property. Where the service is performed by independent parties with no other connection with the railroad than the payment of rent, only that amount should be included in the statement of revenue. Where the carrier performs the service under authority of the charter the gross proceeds derived from the operation should be subjected to the charter tax.

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43. Amusement Parks and Resorts.

No service of this character is performed by the Illinois Central R.R. Co. in connection with its charter lines.

44. Coal Storage Plants.

No service of this character is performed by the Illinois Central in connection with its charter lines which would be included in Outside Operations.

45. Cold-Storage Plants.

No service of this character is performed by the Illinois Central in connection with its charter lines which would be included in Outside Operations.

46. Commercial Ice-Supply Plants.

No service of this character is performed by the Illinois Central in connection with its charter lines which would be included in Outside Operations.

47. Public Toll-Bridge Service.

No service of this character is performed by the Illinois Central in connection with its charter lines which would be included in Outside Operations.

48. Miscellaneous.

Any revenue derived by the charter lines from this account should follow the rules established in previous accounts.

In the accounts from 1 to 48 inclusive is included all revenue derived by the charter lines of the Illinois Central which, in any way, would be subject to the charter tax. However, the State, in its suit against the Company, presents certain claims which relate to aspects of the statement of revenue subject to the tax and yet do not come directly under the various accounts given above. They refer to the following subjects: (a) Cairo Bridge; Dubuque Bridge; trackage rights of Mobile and Ohio at Cairo; (d) shipments between Mounds and points south of Cairo.

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The question of the Cairo Bridge arbitrary is the most important single point in the suit between the railroad and the state and may be well to review briefly the character of existing arrangements. As stated in Chapter I the Cairo Bridge from Cairo, Illinois, to E. Cairo, Kentucky, was built in 1887-1889 by the C.St.L.&N.O. acting under special charter of the State of Kentucky, at a cost of approximately \$2,600,000, and on June 2nd, 1890, it was leased to the Illinois Central R.R. Co. for a term of 392 years at an annual rental of \$180,000. Since that date the Illinois Central R.R. Co. has made a deduction of arbitrary of 2¢ per hundredweight on freight and 2½¢ per person for passengers crossing this bridge. Such charges were authorized by the special charter obtained by the C.St.L.&N.O.¹ In the reports of the company revenue from the bridge arbitraries is stated as "Revenue from Interstate Transfer" and from 1890 to October 31st, 1906, has amounted to the grand total of \$14,995,441.87.² So far as legal ownership is concerned the bridge is divided into two parts: (a) the Illinois approaches extending from the tracks of the Illinois Central main line about three-fourths of a mile north of the city limits of Cairo to the state line on the north shore of the Ohio river; (b) the bridge and Kentucky approaches extending from the state line to connection with the tracks of the C.St.L.&N.O.³ The Illinois approaches were built by the Illinois Central under authority of its charter of 1851.⁴ The bridge and Kentucky approaches were built by the C.St.L.&N.O. acting under special charter act of the Kentucky Legislature and under the authority of its charter.⁵ Since 1890 the revenue derived from the bridge has been credited to the Illinois lines of the corporation in the reports to the Railway and Warehouse Commission of that state⁶; the taxing situs of the bridge is in Kentucky, no revenue from its operation is reported to the railroad commission of that commonwealth.

1 Cf. Chapter I, pp. ; Oral Argument of Judge Dickinson, 1908, p. 34
 2 Amended Bill of Complaint, 1908, p. 17.
 3 Board of Equalization vs. The People, 229 Ill. 430 (p. 449)
 4-5 Oral Argument of Judge Dickinson, Oct. 8-10, 1908, pp. 340ff.
 6 Report Illinois Railway & Warehouse Commission, 1907.

The Railroad Company has not reported revenue received from the bridge according to the following argument: The Cairo bridge was built by the C.St.L.&N.O. R.R. Co. under authority of a special act of the Kentucky Legislature. It is now and always has been the equitable owner of the property. As such it leased the bridge to the Illinois Central R.R. Co. for a term of years, which company thereby became the lawful lessee of the bridge and obtained the rights of the C.St.L.&N.O. in that respect. The special act of the Kentucky Legislature authorized the charging of a specified toll and the Illinois Central R.R. Co. as lessee of the bridge and acting under authority of the lease fixed tolls within the maximum set by the legislative act, viz. 2¢ per cwt. for freight and 25¢ per passenger ^{and} that toll for the use of the bridge from the Illinois-Kentucky state line to the main line of the C.St.L. & N.O. R.R. and was no more subject to the charter tax than the pro-rate assigned to the Southern Lines. Consequently, the state of Illinois has only such jurisdiction over the bridge arbitrary as it has over the pro-rate assigned the Southern Lines, that is, the arbitrary is entirely beyond its jurisdiction provided the charge is reasonable.¹ (It is assumed for the purposes of the argument that the approaches to the bridge ^{are} distinct from the bridge itself and, also, that the Illinois approaches to the bridge are a part of the charter lines and as such partake of the pro-rates assigned those lines.)

In contradiction to this argument the state takes a radically different position, or rather two positions. In the first place it claims that the Cairo-Bridge Illinois Central R.R. Co. is the equitable owner of the Cairo Bridge since it owns and thereby controls absolutely the entire stock of the C.St.L.&N.O. and the mortgage bonds issued against the Cairo Bridge. Since that is the case "the defendant has no right whatever, and never has had, as against the State of Illinois, to de-

¹ Based on Judge Dickinson's Oral Argument, October 8-10, 1908, pp. 340 ff; Demurrer to Amended Bill of Complaint.

duct from the gross earnings of its charter lines any price arbitrary
on account of said Cairo bridge, or any expense whatever for said
 bridge, but that the mileage of the said Cairo bridge should.....be
 considered the same as any other like mileage on the defendant's road."
 Claim is then made for that one half of the receipts from the bridge
 should have been and should now be credited to the charter lines.¹

The second position of the State is almost diametrically opposed
 to the one stated in the previous paragraph. In short it recognizes
 the right of the company to charge a bridge arbitrary, but it claims
 that the bridge and its approaches are one and the same. That being so
 the State attempts to prove that since the Illinois approaches were
 built under authority of the charter the gross revenue of the bridge
 should be divided between the charter and non-charter lines in the pro-
 portion that the length of the bridge and approaches in Illinois bears
 to the total length of the bridge and approaches. The basis of the
 argument is that the bridge and the approaches are one and the same.²

Of these three positions the one taken by the Illinois Central is
 much more tenable. In fact the arguments of Mr. Boys do not hold water
 at all, except in regard to one point which will be referred to later.
 The first position of the State is absolutely untenable. If anything
 is reasonable in fact and law it is that a mile of expensively built
 bridge is not the same as that of a mile in the prairie. The decision
 of the Interstate Commerce Commission in *Freight Bureau v. C.N.O.&T.P.*
Ry. maintains that view beyond the shadow of a doubt.³ Moreover, it is
 equally clear that the charter lines de-hee are different in law and
 fact from the Cairo bridge. The former are constructed in Illinois
 the latter in Kentucky under a Kentucky charter. That part of the

1 Amended Bill of Complaint, pp. 166 to 177; quotations from argument
 of the State quoted by Judge Dickinson in his Oral Argument, pp 340
 2 Quotation from brief of Mr. Boys in Oral Argument of Judge Dickin-
 son, p. 371.
 3 *Freight Bureau v. C.N.O.&T.P.*, 7.I.C.C. Reports, 180, p. 184f.

bridge which lies south of the Ohio River is no more a part of the Illinois Central R.R. proper than is the main line of the C.St.L.&N.O. The mere fact that the lessee owns the entire capital stock of the lessor does not alter the situation in the least. Even if the legal fiction of separate ownership be not maintained, i.e. if ownership of a majority or all of the capital stock of the C.St.L.&N.O. by the I.C.R.R. Co. makes the latter the equitable owner of the former's property, even if that be true, which it probably is not, the Kentucky part of the bridge is in no way subject to the charter tax. Therefore, Judge Dickinson's argument may be regarded as complete refutation of the first claim of the state. The Judge's exposition of his case is so clear that the arguments need not be repeated here.¹

The second position of the State rests on a firmer foundation, though even here it seems weaker than that advanced by the railroad. It is contended that a bridge and its approaches are the same. While true, perhaps, of an intra-state structure it ^{has} not been decided that that is the case with an inter-state bridge. In fact the state Supreme Court in *Board of Equalization v. The People*,² seems to adhere to the position that the contrary is true, as may be seen by the following quotation: "This approach (referring to the Illinois approach of the Cairo Bridge) must be regarded as a switch or sidetrack "needful to carry into effect fully the purposes and objects" of the Act, and not as a branch or later^{al}/railroad"³. (Even Mr. Boys accepts this position when he says: "Fee-~~exide~~ "If, however, the arbitrary was added to the rate, and that arbitrary was a reasonable one...then the arbitrary should be deducted from the rate before dividing the through rate,"⁴ To carry the discussion further must result in a difficult tangle which will be confusing to both sides. Unless the State can obtain a

1 Oral Argument of Judge Dickinson, Oct. 8-10, 1908, pp.340ff.
2 Board of Equalization v. the People, 229 Ill. 464.
3 Ibid.
4 Oral Argument of Judge-Dickinson, -p.Mr. Boys, p. 418.

decision contrary to the Freight Bureau case or, adopting the other view of the Cairo Bridge, rests its suit on the continuity of the bridge and its approaches and obtains a favorable decision on that point unless it can secure such results, which is hardly probable, it is difficult to see how it can maintain its side of the case. Therefore, in the final analysis, the question at issue is not the ownership of the bridge or the fact that the bridge and approaches are the same, but the reasonableness of the charge or arbitrary for traffic crossing the Ohio river. Mr. Boys really acknowledges this when he states: If, however, the arbitrary was added to the rate, and that arbitrary was a reasonable one, and one that the court would approve as reasonable, then the arbitrary should be deducted from the rate before dividing the through rate".¹ As Judge Dickinson says: "The amount that was realized from the bridge cuts no figure unless the charge was an unreasonable charge for the services performed."² At first sight it may seem that a different result would be obtained if the bridge and approaches were regarded as the same and the revenue pro-rated between the charter and non charter lines in the proportion, say, of mileage. This is not the case, however. If the rate for the charter lines is made on the foot of the Illinois approach it must be reasonable for that distance; if the length of the approach is added the pro-rate must be a reasonable amount for the main line, plus a reasonable charge for the approach, or a reasonable pro-rate for the entire distance. If an arbitrary is made for the bridge and ^{Illinois} approach it must equal the reasonable arbitrary for the bridge without the approach plus the reasonable charge for the approach; it should be neither more nor less than that amount. What a reasonable arbitrary is is a question that will be taken up in the next chapter.

¹ Oral Argument of Mr. Boys, Oct. 1908, p. 418. He adds "and as to the Cairo bridge, that portion of the bridge which is in the State of Illinois, and which is exempt from taxation under the charter, the earnings of that portion should be considered."

The second point not pertaining to the I. C. C. classification relates to the Dunleith and Dubuque bridge from E. Dubuque to Dubuque. The principle involved in the case of this bridge is exactly similar to that state in regard to the Cairo bridge. While differences exist and differences of detail and need not be mentioned here.¹

The third point not discussed as yet refers to the trackage rights of the Mobile and Ohio R.R. at and near Cairo. On December 31st, 1898, the M. & O. R.R. entered into a contract with the Illinois Central R.R. Co for the use of certain of the charter line tracks in and about the city of Cairo, including depot and other terminal facilities, and also the use of the Cairo bridge.² It seems that no amount received from this agreement has been credited to the charter lines and the state demands that the same be subjected to the charter tax. The amount collected to October 31st, 1906, was \$1,262,034.57. The Bill of Complaint does not state specifically what services are performed for the M. & O. R.R., but from other sources the writer infers that most of the revenue was received from the movement of M. & O. trains over the Cairo bridge. Such receipts, of course, should be distributed in just the same manner as any other revenue earned over the bridge. The remainder, if any, is probably a rental paid for the use of charter line facilities at or near Cairo. There need be no question in regard to this. Whatever sums are paid for such facilities are a proper credit to the revenue of the charter lines and should be subject to the gross receipts tax.

The last point to be raised concerns certain practices of the company in regard to the movement of λ . carload freight from Mounds, Illinois, to points south of the Ohio river. Trains to and from the Southern Lines are made up at the Mounds yards and, naturally, that point

- 1 Oral Argument of Judge Dickinson, Oct. 8-10, pp 364.
- 2 Bill of Complaint, p.p. 180 ff.
- 2 Bill of Complaint, pp. 178-180.
- 3 Ibid. pp. 246-7.

was taken as the end of the charter lines. Such an assumption, of course, is incorrect, since the terminus of the charter road is not Mounds but the Illinois-Kentucky state line, and pro-rates should be adjusted for this difference.

The amounts alleged by the State to be due from the Railroad Company are quoted as they are given, without either change or comment. Large sums have already been spent in auditing the books of the company and it is reasonable to suppose that the amounts given are approximately accurate. However, exact amounts are given in only a very few instances and in practically no case is the record of individual shipments, upon which many of these questions should be decided, given in full or in part. As Judge Dickinson bitterly complains: "They never have any thousands at all. It is always millions. Anybody reading this bill would say that somebody had been rubbing Aladdin's lamp, and the doors rolled back and revealed millions. You cannot see anything but millions in this bill. They do not give details."¹ For this reason it is utterly impossible to criticize the accuracy of the accounts given.

Owing to the facts just mentioned and the general vagueness of the Bill of Complaint presented by the State it is difficult to summarize the changes that would result from the adoption of the method of accounting proposed above. Without a doubt it would increase the amount of revenue derived from the charter lines that is subject to the seven per cent tax, but how much it is now impossible to state. Aside from the Cairo bridge (this is really a question of proper pro-rating) the rough estimate would place the annual increase in gross receipts at perhaps \$500,000 per year; certainly, on the figures given by the State, not over twice that much. Whether such a gain in revenues would have made the suit worth while is a question with which we are not concerned at present.

CHAPTER VIII.

THEORETICAL CONSIDERATIONS INVOLVED IN THE DISTRIBUTION
OF GROSS RECEIPTS BETWEEN SYSTEM SUBSIDIARY ROADS.

In the previous chapter a study has been made of what is made of revenue should be subject to the seven per cent charter tax of the Illinois General Railroad Company. There now remains the equally important question of how that revenue should be divided between the charter and non-charter lines of the system, that is, what method or methods of pre-rating should be adopted. It is not within the scope of this monograph to enter into a detailed examination of the various pre-rates now in force and the discussion, therefore, will be confined to theoretical principles together with a brief outline in the succeeding chapter of a possible method of making a practical yet scientific distribution of gross receipts. For the purpose of the argument it is assumed that the Railroad Company should account item by item for every shipment passing over its charter lines whether inter-state or intra-state. That duty is denied by the corporation and it may be that when the suit is finally adjudicated the revenue subject to the tax will be limited to strictly intra-state business, in which case the need for accurate system of pre-rating will have almost disappeared.

As a word of explanation in regard to the length of this theoretical discussion the writer would state that the principles involved in system pre-rating of revenue have never been presented in a thorough manner and it is necessary, therefore, to refer to the fundamental economic theories and to build up the argument de novo from that foundation.¹

¹ The only academic discussion of this principles is to be found in Professor M.H. Robinson's article on the Legal and Accounting Principles involved in the Judicial Examination of

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When for purposes of law or accounting it becomes necessary to divide an undertaking such as a railway system into different parts or divisions determined by natural or artificial boundaries it is as if the business were placed under a powerful microscope which brings into sharp relief the various units composing the whole just as a seemingly solid substance is dissolved into its constituent elements in the test tube of the chemist. The supposition is that the legal or accounting division ^{is,} for the purposes for which it was created, a distinct and separate entity supplied with all the powers and performing all the functions pertaining to the whole. In other words, it is a miniature, a model of the whole. The accounting or legal fiat establishing this entity gives, as it were, the spark of life to it and henceforth we must regard its operations and its transactions with other real or nominal ~~business~~ business entities as actual transactions or operations, even though they are commonly regarded as nominal and void of substance.

Thus, when a large business, e.g. an manufacturing establishment, is divided into departments, shops other divisions these parts should be considered independent business combined in one plant for sake of convenience. And so, if the Illinois Central System is divided into a number of subsidiary corporations for purposes of the charter tax these various parts, be they formerly independent companies or be they lines of track bounded by purely artificial boundaries, are, for the given purpose, separate and independent railroads; their operations should be regarded as actual as those of independent corporations. The matter of common control and ownership is an incident which cannot affect the theory or fiction of independent existence.

Nor is this supposition unreasonable. The industrial organization of the nation itself is merely the complex of an enormous number of individual enterprises. For purposes of convenience or efficiency or through custom or legal arrangement this complex is divided into great

groups---transportation, agriculture, manufacturing, mining-- which again are organized into sub-groups and these sub-groups are still further subdivided into sub-sub-groups and so on until we reach the individual worker. There is no logical reason why every individual or at least every family should not constitute an independent and self-sufficient economic producing unit---history tells us that that was once true. It is a matter of social and economic expediency which unites individuals into business groups and it is that same question of expediency which determines where the practical grouping shall cease and where not.

Transactions between independent business concerns; transfers of actual commodities in exchange for other commodities or money or services, these are actual transactions and the business world expresses the exchange in terms of price. Commodities are sold and bought; there are buyers and sellers. So when legal or accounting fiction creates nominal business entities in the form of department, division, shop or subsidiary read transactions between these nominal entities and the real or nominal entities should still be regarded as transactions of price; commodities are bought and sold; there are buyers and sellers. If a machine shop secures materials from the store room it is ^{really} ~~nominally~~ buying them and if it ~~sells~~ sends its finished product to the sales department it is selling the same. The transfer of credits on the books of the shop, the store-room and sales-department correspond to the transfer of checks or cash between this and other concerns.

The terms of the actual transfer of commodities, the price as the business man terms it, is not a haphazard phenomenon. Instead it is the result of certain fundamental economic principles, which the economist calls the law of price or value. So long as there are ^{real} buyers and sellers these laws hold good; their perfect working may be interfered with---economic friction intervenes---, but where complete competition exists the law is seen in its pure state. But when nominal legal or

accounting entities are created the buyer and the seller, practically, are one and the same party. Perfect competition no longer exists; in its place there is a monopoly utterly beyond the control of economic laws relating to price and value. A beggar might sell himself his worn out shoes for a million dollars; law or accounting might establish two entities--the selling beggar and the buying beggar--yet no one would claim that those shoes were worth a million dollars. So it is with a corporation. The store-room might ^{charge} sell pig iron at \$1000 per ton; the shop might charge the sales-department \$1500 per ton for rails; the sales-department actually sells the rails for \$28 per ton, thereby incurring a nominal loss of \$1472 per ton, although there might be a handsome profit for the establishment as a whole. The transactions are still transactions of price conforming to every form of ordinary commercial transfers, but who would not say the arrangement was absurd?

Such conditions might exist temporarily in the business world, but the interplay of economic forces soon prevent their continuance and a normal state is eventually reached. Since ~~this-cannot-be~~ there is no possibility of self-adjustment through competition of prices charged between fictional entities--the only adjustment can come through action on the parties controlling the business as a whole--it is necessary to create, as it were, a state of perfect competition where the fundamental laws of price work without economic friction; in other words revert to purely theoretical conditions. Having once established these primary principles it becomes possible to apply them to practical conditions with such modifications as may be necessary, or, on the other hand, actual everyday methods may be tested by this standard of theoretical accuracy and so modified to suit exigencies of business demands. In any case, however, the divisions established or prices made are merely a special form of general prices, ^{more or less correct} a miniature of what is going on in the world of actual business transactions.

If corporation prices or system prices are fixed by the parties composing the whole should conform to fundamental principles of price. The question is What are these principles? Price is commonly regarded as the exchange or market value of economic goods expressed in terms of money, usually gold or silver. This market value, for a long enough of time, is limited by two boundaries. The upper limit or maximum price is the total utility of the commodity to the buyer; the lower limit or minimum price is the total cost to the producer, i.e. rent, labor, interest and economic profits. Temporarily the buyer may pay more than the total utility of the article or the producer may dispose of his goods at a loss. But these instances are exceptions and prices normally fluctuate between the two extremes, the amount paid depending upon the relative bargaining ability or the economic strength of buyer and seller. In case of monopoly the price may and sometimes does tend to approach the upper limit; where competition is free it keeps close to the lower level. If all friction be removed, i.e. if there is complete mobility of capital and interest, selling price and cost of production (including rent, labor, interest and risk) will coincide. It is this line, therefore, which represents the strictly normal price.

Accordingly, the basis for determining prices established between fictional business entities is the cost of production belonging to the entity. That is, the amount credited to it should be the total of rent, labor and interest and risk incurred in producing its part of the total product. Special or differential profits and losses, of course, should be divided in accordance with particular conditions affecting the various divisions. (A careful adherence to this last point will provide for apparent exceptions to the rule due to joint costs, etc.) Putting the principle in a different way we would have: Each legal or accounting division should be credited with such revenue as it would earn if its operations could be entirely separated from those of the whole organization and yet retain the same advantages of purchase, operation.

It is a well known fact that the human mind is capable of receiving and storing a vast amount of information. This information is stored in the form of memories, which are organized in a hierarchical manner. The first level of organization is the sensory input, which is received by the senses. This input is then processed by the brain, which extracts the relevant information and stores it in the memory. The memory is then organized into a hierarchy, with the most important information at the top and the least important at the bottom. This hierarchy is known as the memory structure. The memory structure is a complex system, and it is not yet fully understood. However, it is clear that the memory structure is a key component of the human mind, and it is essential for the storage and retrieval of information. The memory structure is also a key component of the human learning process, as it allows the individual to store and retrieve information from previous experiences. This information is then used to inform future decisions and actions. The memory structure is a complex system, and it is not yet fully understood. However, it is clear that the memory structure is a key component of the human mind, and it is essential for the storage and retrieval of information. The memory structure is also a key component of the human learning process, as it allows the individual to store and retrieve information from previous experiences. This information is then used to inform future decisions and actions.

and sale than it had before.

Having discovered the principles applicable to general prices we may now turn to the particular field of railway transportation and endeavor to ascertain how far they apply to railway rates.

It may be taken for granted that railway rates are prices charged for transportation services. The argument is clear. Transportation is that part of production which creates place utilities. The creation of place utility does not differ in character from the production of time or form utility and, consequently, whatever principles are applicable to the latter must be applicable to transportation. The mere fact that the service is given by a quasi-public corporation governed by what is termed the law of "joint costs" does not affect the principle in the least. Even where transportation is free or is supported by public taxation it is still a utility, although the method of paying for the same is altered through the influence of law or custom. The return of normal conditions would restore the charges to the same basis they would have had if the peculiar laws or customs did not exist.

Now if railway rates are prices charged for the creation of place utility they must be subject to all the ^{Fundamental} laws of price. In other words, under perfectly free competition (including complete mobility of capital and labor) railway rates would necessarily conform to the cost of service. As will be shown later, this must mean that every particular charge would conform to that standard. This, of course, is contrary to commonly accepted views and before taking up the thread of the argument it may be well to state briefly the two doctrines relating to railway rates. The first, of cost of service view, is the one which the writer considers in strict accordance with the law of price; the second, or value of service doctrine, is a modification which meets practical conditions. Both apply to the rates for individual shipments.

The Cost of Service theory may be summarized as follows: Transportation is a part of the general cost of production and since the normal price of an object is its cost of production individual tariffs should be based on the cost of handling the particular commodity. That is, the rate should include not only the actual cost of movement, but a proportional share of all general and fixed expenditures such as maintenance, wages of management and superintendence, interest, dividends, etc. In other words, the total expenditure of the road should be charged to all the items carried in proportion to the cost of service. This principle does not mean equal mileage rates, but allows for differences in terminal charges, expense of train operation, etc. It may be expressed by the following equation: $T^1 / E / T^2 / F / P = R$, in which T^1 represents originating terminal charge; T^2 receiving terminal charge; E operating expense; F fixed maintenance and general expense; P net earnings; R rate. To a modified extent this theory has been adopted by Continental railways and to an even less degree has been advocated by American courts and public service commissions.

The Value of Service theory is slightly different. While transportation as a whole is one of the expenses of production it is neither possible nor desirable to base each rate on its proportion of the total cost of operation, although the aggregate receipts of transportation companies should correspond to the total cost of performing the service i.e. wages, rent, interest and profits. The railroad in transporting a commodity from one place to another gives it an increased place utility which varies with the article and time; usually expensive goods obtaining a larger increase in market price through this service than cheaper goods. Railway rates should correspond to this utility element, i.e. the increased value of the commodity resulting from the carriage. The minimum rate is the actual-- additional train and station expense resulting from movement of the particular commodity; the maximum charge

necessary. The organization must be kept intact and there are a thousand and one duties which prevent anything like free competition. Therefore, for the purpose of this argument, we may consider the railroad as a monopoly, or at least a quasi-monopoly fixing its charges according to monopolistic principles. This does not imply that rates are unjust or that a certain amount of competition does not exist, but the result of the latter is merely to prevent the working out perfectly of the principle involved of quasi-monopoly price.

Under the circumstances outlined the corporation has several courses open to it. (In ~~that~~ Rates might be fixed on cost of service) It might fix rates at the maximum utility to the shipper, but the traffic would be so light it could not pay expenses. Again, it might fix every rate on the cost of service, but in that case the rates on low grade freight would be so high much of it would not move and the revenues of the road would be reduced. Instead of these plans the railroad has adopted a third method. It has made its rates conform in part to the utility to the consumer; in part on cost of service. On high class traffic it has placed rates which conform to utility of the service to shipper, not cost of service to the carrier. Under conditions as they are it is getting the maximum revenue out of this class of traffic. So far there is no divergence from the ordinary law of price. In addition to this high class business there is a possibility of developing a great deal of low grade traffic. It cannot fix the rates beyond the utility of the service, otherwise nothing will be moved. However, this maximum utility is above the cost of service, although not above the cost of certain parts of that service which alone vary directly with the movement of traffic. Accordingly, the road fixes the rate at or below the point of utility for this low grade traffic and obtains thereby something applicable to fixed charges. The principle followed is too well known to need further comment.

The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is well-posed and that the solution exists and is unique. The second part of the paper is devoted to the construction of the solution. It is shown that the solution can be constructed by the method of successive approximations. The third part of the paper is devoted to the numerical solution of the problem. It is shown that the numerical solution can be obtained by the method of finite differences.

The fourth part of the paper is devoted to the stability of the solution. It is shown that the solution is stable with respect to the initial conditions. The fifth part of the paper is devoted to the convergence of the solution. It is shown that the solution converges to the exact solution as the number of iterations increases. The sixth part of the paper is devoted to the error analysis. It is shown that the error of the numerical solution is of the order of 10^{-6} .

The seventh part of the paper is devoted to the comparison of the numerical solution with the exact solution. It is shown that the numerical solution is in good agreement with the exact solution. The eighth part of the paper is devoted to the conclusion. It is shown that the problem has been solved successfully. The ninth part of the paper is devoted to the references. It is shown that the references are given in the form of a list.

The tenth part of the paper is devoted to the appendix. It is shown that the appendix contains the tables of the numerical solution. The eleventh part of the paper is devoted to the index. It is shown that the index contains the names of the authors and the titles of the papers. The twelfth part of the paper is devoted to the bibliography. It is shown that the bibliography contains the names of the authors and the titles of the papers.

Apparently these views are utterly divergent, but as we shall see later. Taking up the thread of the argument again let us suppose that both capital and labor were completely mobile. It is almost beyond our imagination, yet that is what is demanded in considering a state of perfect competition. Under the given conditions money could be transferred into ties, rails or ballast without difficulty. A railroad could be torn up without expense and transformed into a steel foundry or else used for a hundred different purposes. It would be as if some genii wish in response to a wonderful Aladdin lamp could magically transform one substance into another instantaneously and without waste. Not only must there be complete mobility of capital and labor, but there must be no monopoly, either legal or natural, or any other influence commonly termed economic friction. Assuming this, if we can, we find that under the given conditions it would be impossible for a railway to charge more for any service than the cost of doing it. To-day high class freight pays considerable more than low class freight even where the cost is the same. If competition were perfect this could not be done for some competitor would arise to haul it for cost. The eventual result of these magical conditions would be to place all charges on the exact cost of service. It is true that many kinds of low grade freight might not be carried and instead of having low charges there would be high rates, but that would be an unavoidable incident. If exception must be made to the law of price under these conditions that law may be regarded as worthless.

However, the capital invested in railways is by no means perfectly mobile, nor is there absence of economic friction. As a matter of fact, the railroads have considerable monopoly standing and where there is competition it is severely limited in its character. Moreover, the railroads represent an enormous fixed investment which must be maintained day in and day out and for which heavy interest payments are

Now, if this practice be examined closely it becomes evident that it is not contradictory to the law of price, but rather is the result of economic friction. Instead of being the law of joint costs it is merely a corollary. The more that economic friction is removed the nearer does practice approach the theory of price. For instance, where two roads are parallel there is a constant fight for the high class traffic and gradually the rates are forced down to a point near the theoretical cost of service and often much below that line. If the competition continued long enough we might have a condition approaching our state of perfect competition. As rates fell the roadbed would deteriorate and operating expenses would rise. This would make it unprofitable to haul the extremely low grade freight. Further shrinkage in values would occur and still more low grade freight would cease to be carried on account of increasing operating or train expenses. Finally, the property would be in barely good enough condition to haul high class freight. The roadbed and equipment would approximate that found in this country fifty years ago when only high grade freight was hauled.

The argument may now be summarized in a different manner. A railway may fix its rates at a point coinciding with the theoretical cost of service of each shipment. However, owing to the presence of economic friction and particularly a somewhat peculiar combination of monopoly and competition, it finds that it is possible to establish some of its charges at a point above the theoretical cost of service, but under the utility of the to the shipper; it also finds that it is possible to place some rates below the theoretical cost of service, yet equal to or slightly under the place utility added. The nearer the roads approach to free competition, i.e. theoretical conditions, the more closely will rates conform to the theoretical cost of service; the farther they go, towards a state of monopoly, i.e. away from theoretical conditions, the

les and rates conform to theoretical conditions. If a state of perfect monopoly were attained, i. e. all the power of production or of the world consolidated under one management, economic friction would be supreme, perfectly theoretical conditions lost and rates would then cease to have any relation whatever to the theoretical cost of service. When such a state of society is reached our fundamental law of price would have changed in a similar direction with utility instead of cost the normal standard.

In ordinary commercial transactions the social, economic and accounting disadvantages connected with the strictly theoretical method of establishing rates upon the basis of cost of service have resulted in the adoption of the value of service or charging-what-the-traffic-will-bear principle. Where the influence of these disadvantages are unimportant, as in the case of system pro-rates, it becomes possible to adhere as closely as possible to the cost of service basis of division and, if the argument advanced in the first part of this chapter be correct, should be regarded as the standard for scientific accounting of system gross receipts. The fact that the elimination of competitive conditions makes such a plan theoretical practicable does not imply that the same system is correct in the making of rates for the business world.

While a division of system rates according to cost of service is the strictly scientific method if it is not clear that it should be adopted to the exclusion of the value of service principle. In succeeding paragraphs it will be shown that railway rates are so largely a product of joint costs that any thoroughly scientific method of dividing-the-same establishing pro-rates on cost of service is at best merely an approximation. Since the accounting or legal entities in question are miniatures of the general business and since their operations should correspond as closely as feasible to the operations of the

larger unit it is not unscientific to adopt the practical method of the latter when it can be done without causing injustice. This is especially true of an undertaking such as a railroad where the customary principle of rate-making differs so radically from the theoretical basis. Therefore, it is sufficiently scientific for the purposes in question to distribute system rates between subsidiary roads on either the cost of service or on the value of service principle, provided the method adopted is not arbitrary and corresponds as near as is practicable to the theoretical principle involved in the one or the other method. In other words, it is impossible to establish a method of prorating which conforms absolutely to the theoretically correct standard and the common sense solution of the problem is to adopt that plan which is practicable, yet approaches best to the theoretical standard.

The cost of service method will be discussed first. A strict adherence to that doctrine in the establishment of system pro-rates necessitates a division of the revenue arising from each particular shipment between the various subsidiary roads in the proportion that the cost of handling that particular shipment, including allotment of the fixed maintenance and interest charges, on one road bears to the total cost of movement. To be consistent a different division would have to be made for every way-bill since the operating expenditures of the road are changing constantly and vary with every ton of freight or every passenger carried. Such minute allocation of expenditures is utterly impracticable under existing conditions and even if it could be made the accounting expense involved would greatly exceed the gross receipts derived from the business. Accordingly,

Accordingly, any cost of service method must be an approximation which even under the most favorable circumstances will be only fairly accurate. Existing plans have been confined to statistical work such as reports to executive officers or to government commissions and while they may answer the purposes mentioned it is an entirely different

matter to use them in determining receipts which are to be used as the basis of taxation. In the former instance the use is not for absolute but rather for comparative accuracy. For example, the Interstate Commerce Commission at one time instructed the railroads to divide rates between the ten I.C.C. divisions according to train mileage. The arrangement was not expensive and while not accurate for any particular railroad yet gave results which answered the purposes of the Commission and, on the whole, might be regarded as fair since the error was constant from year to year and ~~from~~ throughout the country. Viewed from the standpoint of a proper tax method most of the methods now in use are inapplicable and only three need be mentioned. (These plans apply merely to rates affecting more than one subsidiary road, since local charges need no division.) They are:

- (1) Division of rates according to the mileage traversed by the shipment; usually termed equal mileage division.
- (2) Creation of constructive mileage for the separate divisions and division of rates according to that mileage.
- (3) Establishment of pro-rata per centages based on expense of handling shipments during specified period of six months or a year.

The first plan, equal mileage division, would not deserve mention as a scientific plan were it not for its adoption by the Wisconsin Public Service Commission and its advocacy by the State in the Illinois Central suit. The chief advantage pertaining to it is its simplicity and the ease with which it can be applied; its chief disadvantage is its lack of scientific accuracy. The method is clear. Find the total mileage traversed by the shipment and then ^{allocate} ~~divide~~ the way bill revenue to the different roads in the proportion that the mileage of the shipment on each road bears to the total haul. For example, if the rate from Chicago to New Orleans is \$1.10 and the proportion of charter mileage to total mileage is as 40 is to 100, then 44¢ should be credited to the charter lines and 66¢ to the non-charter lines.

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The assumption implied in this equal mileage principle is that the cost of handling a shipment is the same per mile on every part of the system. A somewhat different statement is that made by Mr. Boys in a reference to the Cairo bridge: "Not one mile, whatever it may have cost, is worth more than any other mile; and so of the approaches proper. Every foot of them does the same work and earns as much freight money and tolls and rentals as any foot of the bridge proper."¹ Then as stated in the Bill of Complaint: "And your orator further avers that no special circumstances exist with reference to any of the non-charter lines of the defendant which would make it a fair, just and equitable to divide said income on any other basis than according to mileage..."² Let us examine these assumptions and see whether they are correct?

For certain classes of traffic on certain parts of the railroad there might be no difference or practically no difference in expense of movement, but it is ⁱⁿ correct to assume that the cost of operation, either in percentage of gross receipts or in cents per ton or train mile is the same or even approximately the same for every mile of a great system sixty three hundred miles in length and operated throughout a territory extending from New Orleans to Minneapolis and from Omaha to Indianapolis. The mere statement of the problem indicates its fallacy. As will be seen later it is not even true for direct operating expenses but the revenue of a railroad must provide for more than that item. Referring to our formula $T^1 \div E = T^2 \div F \div P = R$ we find that all these factors must be provided for. They will be examined in order, viz. Terminal expense, Conducting Transportation, Maintenance of Equipment, Maintenance of Way and Fixed Interest Charges.

Terminal Expense. Every shipment originates and terminates at a station and the great bulk of business passes through the large terminals at one time or another. The expenses pertaining to this part of the movement depend directly upon the character of the goods ~~er~~ and the

¹ Oral Argument of Mr. Boys, Oct. 1908, p. 389.

² Bill of Complaint, item 133,4 p. 206

facilities of the station, not upon length of haul to or from station. For example, two boxes of merchandise are received at the South Water St. Station of the Central. The cost to the company of receiving, weighing and storing the boxes and of switching the car and then making up the train is exactly the same per box. One goes to Madison, the other to New Orleans, yet the terminal cost is the same for each. What is true of L.C.L. business is also true of C.L.

Nor is the expense assignable to the terminal or station inconsiderable. If the actual terminal expense of operation, interest on the investment and damage and delay due to terminal operations be taken into account it often happens that the cost of receiving and forwarding a shipment will ~~exceed~~ be as high as a third or even a half of the total revenue, perhaps even higher. In any case, it will form a very large proportion of the gross receipts.

This fact is recognized by the Railway and Warehouse Commission of Illinois in their "Schedule of Maximum Freight Rates". For instance, the first class rate for 2 miles or under is 7.5¢; for 20 miles it is 15¢. That is it is carried 18 miles ^{on the road} for the same rate amount it is miles, loaded and unloaded at stations carried two; due, of course, to station charges.¹ This fact is recognized the world over.

Conducting Transportation. Even after the freight has left the terminal and is on the road the expense of movement per ton mile varies on different divisions. Density of traffic, nature of the freight, physical character of roadbed, direction of traffic movement, season of the year are a few factors which cause variations from day to day and from place to place. A great railway system is made up of a number of different kinds of road. At one extreme is the main line with two or four tracks, rock ballast, easy grades, long tangents, block signals, heavy traffic, new and heavy motive power, well arranged terminals and every facility for handling full trainage trains quickly and cheaply. At

1 Ill. R.R.&W. Com.Report, 1907, p. 728.

the other extreme is the branch with no ballast, steep grades, sharp curves, slight density of traffic, few sidings and signals, with but motive power and equipment. Will the cost per ton mile be the same on the main line and on the branch? It may and probably will cost three or four times as much per ton mile to handle freight over the latter as over the former.

Moreover, only a part of the expense of Conducting Transportation pertains directly to the handling of the freight. Superintendence, salaries of station agents, miscellaneous expenditures, etc. must be incurred irrespective of the traffic; as a result further variations in cost of Conducting Transportation per ton mile are brought about.

Maintenance of Equipment.

Maintenance of Way and Structure. Maintenance expenditures, which constitute a large proportion of the total expenses of a railroad differ materially with different pieces of road. As a general rule the expense of repairing and renewing a locomotive, freight car, bridge or stretch of permanent way does not vary greatly, provided conditions are approximately similar. A rail or tie costs no more, aside from freight charges, on a branch than on the main line, nor is the maintenance charge per locomotive, car or mile of track much different. (The reverse is usually the case) Nevertheless, the maintenance cost per ton mile, which may be taken as the standard, is much heavier on a light traffic line than on a heavy traffic one. \$2500 per mile expended for maintenance of way on a main line with 5,000,000 ton miles per mile of road will be only .05¢ per t.m., but \$500 per mile on a branch with 100,000 t.m. per mile will be .5¢ per t.m. \$3,000 repairs and renewals on a consolidation locomotive handling 60,000,000 net t.m. per year is .005¢ per t.m.; \$1500 a year on a worn out ton wheeler handling 6,000,000 t.m. per year is .025¢ per t.m. Climatic conditions, character of labor, nature of traffic and standard of maintenance will also bring about variations in different parts of a system.

General Expenses and Fixed Charges. This class of expenditures affects the ton mile costs in approximately the same manner as fixed maintenance charges. Interest on the investment, in particular, will vary with different lines. For instance, interest at 4% on a branch line built for \$15,000 per mile handling 100,000 t.m. per mile is .6% per t.m.; interest at the same rate on \$150,000 expended on a main line with 1,000,000 t.m. per mile is only .12% per t.m. Moreover, some parts of the road will involve much greater capital expenditures and, consequently, greater interest charges than other parts, although the traffic density is the same or even less than on the latter.

In the illustrations extremes have been taken, but what is true there is true, though to a less extent, of almost every subsidiary road in a great system. Occasionally, the cost of transportation per ton mile will be the same and to that extent equal mileage rates are justified. Such a state, however, is the exception and the general adoption of that method must result in grave injustice to particular parts of the system. ~~(Therefore, viewing the plan from both the theoretical and the practical standpoint it is safe to assume that it would not satisfy the requirements of ^{gross receipts} distribution which is the basis for taxation.)~~ Whether it is more scientific than the existing system of company pro-rates is a matter that will be discussed later.

But advocates of the equal mileage division may admit the facts stated above and yet claim that the method is more equitable than any plan yet proposed which is based on cost of service. In support of this contention they quote able authorities. The Wisconsin Railroad Commission in the case of Buell vs. C.M.&St.P., the two cent passenger fare case, adopted the following method for ascertaining the gross revenue of the C.M.&St.P. R.R. in that state, which it used as the basis of its 2 1/2¢ fare decision: "The gross earnings for the part of the line which is located in Wisconsin were determined as follows:

The revenues received from all shipments and services which began and ended and were carried wholly within, or which were performed in Wisconsin were credited to this State. The revenues received from all shipments or services which were transported or performed partly in this State and partly in some other state or states were apportioned to Wisconsin in the proportion which the mileage of such transportation within this state bore to the total mileage of this transportation.¹

Speaking of this method the Commission states: "The above described method of apportioning the gross earnings to this State is as fair as any that could have been used."² (Referring to this same plan) Professor M.H. Robinson of the University of Illinois says: in his recent discussion of Passenger Rates considers this the best practical method now in use.³ Notwithstanding this weight of authority the equal mileage method cannot be regarded as correct for taxation purposes.

If the Wisconsin decision be examined we find that it relates to the determination of a proper passenger rate. In other words, the matter of gross revenue was only an indirect question. In the second place, the margin of error allowed by the Commission is more than should be allowed in a tax case. As a matter of fact the amounts involved in the Milwaukee case was about a half to a third that at issue annually in the Illinois Central System. Thirdly, the investigation of the Commission was limited in the matter of expense. Whatever facilities were placed at its service by the railroad was voluntary and neither the Railroad nor the Commission felt it desirable to make heavy expenditures. In the charter tax suit something like seven or eight millions of back taxes and annual amount of perhaps half a million more than what has ^{been being} ~~has~~/or ~~is~~/paid by the railroad is claimed by the state. Under the circumstances, much more accurate results are demanded than were necessary in the Buell decision. Finally, the Railroad already

1 A.E. Buell v. C.M.&St.P. Ry.Co., R.R.C. of Wisc. No. 32. p56.
 2 Ibid.
 3 Yale Review, p.

has in use a system of pro-rating which is similar to that in universal use by the railroads of the country and has many claims to consideration. Thus, the burden of proof is upon the State and unless it can show that an equal mileage division is more accurate, i.e. more scientific, and more practicable than the methods now in vogue it would be unjust for any court to order the change.

Therefore, despite the weight of authority in favor of the equal mileage plan the theoretical disadvantages of the plan are so great that it cannot be considered as admissible in a scientific system of pro-rating. Professor Robinson states: "It has the disadvantage of assuming that rates are made on an equal mileage basis for individual shipments and services. In this respect it is open to criticism."¹ If no better methods could be found and it was ^{proved} believed that the present arrangement of Company pro-rates worked injustice to the state while an equal mileage division would not work equal injustice to the Company, under those circumstances it might be wise to adopt it, but, as the writer will attempt to show later, most of these suppositions do not hold true. Accordingly, we must reject the proposition as a scientific arrangement of system pro-rating, based on cost of service.

Another and entirely distinct contention for the plan is that it is not a cost of service theory at all, but rather one based on value of service. That is, an equitable valuation of the utility rendered by particular divisions is the length of haul of the shipment over that particular part of the railroad. The merits of this claim will be discussed under the value of service theories of pro-rating.

The second cost of service plan is division of the rates according to constructive mileage assigned to particular & subsidiary roads. For example, the actual line mileage of the South Chicago Railroad is 4.76 mile, but for purposes of railway rates this might be increased to any

1 Yale Review, p.

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25 miles. If a shipment were sent from South Chicago to Kankakee, a distance of 60 miles, the above arrangement would ~~increase the~~ establish a constructive mileage of 80 miles, and the rate would then be divided between the South Chicago R.R. and the charter lines on the basis of 25 to 55.

On the whole this plan would secure more equitable results than that of equal mileage pro-rating. Once the amount of constructive mileage were made the division of rates would be even simpler than at present and if the amount of constructive mileage were certified to the proper State officer the possibility of fraud would be largely eliminated. Other advantages are; (1) it allows branch and other lines expensive to operate a fair proportion of the gross receipts; (2) the amount of constructive mileage allotted to particular divisions would not be a difficult nor an expensive undertaking; (3) the effect of changed operating conditions could be arranged for without an excessive amount of labor.

On the other hand, there are a number of very weighty objections.

(1) Like the equal mileage arrangement it violates the fundamental principle of cost of service in that it does not follow the equation $R = T^1 / E / T^2 / F / P$. The error is not as great as in the first mentioned plan, but it is still too large to admit of its being called thoroughly scientific. (2) It works injustice to many particular shipments. The constructive mileage must be based on an average, which, naturally, would not represent a large number of separate items. Changes in expense of operation or density of traffic or character of business might eventually end in an inequitable arrangement. (3) the plan would tend to become rigid and inelastic. The most important objection of all is that it seems to be a strictly artificial arrangement having comparatively little reference to everyday conditions and yet cannot be considered desirable from the theoretical standpoint.

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The third and last method of pro-rating rates according to cost of service is a somewhat arbitrary one developed by the writer. Owing to the number of detailed points involved the discussion is referred to chapter vii where it is treated at considerable length. In brief the plan is as follows: (1) Divide freight traffic into three classes, (a) less than car load merchandise; (b) car load freight requiring special facilities; (c) car load freight not requiring special facilities. (2) For a specified period, year, month or quarter as the case may be, ascertain for every terminal and station the average expense per ton in and out bound of the various classes of freight. (3) Ascertain the total road expense of each division or subsidiary road and find the average amount per ton mile of the various classes of freight moving over the division. (4) Between every two stations the estimated cost of movement for each of the three classes may be found by taking the average ~~average~~ cost per ton of that class of freight handled at forwarding station; average cost of handling at receiving station; and length of station multiplied by average amount per ton mile of road expense on that division. (5) The same method can be followed to obtain the estimated cost of movement on the part of the division belonging to each of the subsidiary roads. (6) Having found the estimated cost of handling the particular class of freight between the two stations and the estimated cost on each division the percentage of cost on division to total cost can then be found. (7) These per centages should be used in dividing way bill revenue if derived from all items grouped under the general class passing between the stations in question between the various subsidiary roads. (8) Once the per centages were obtained they could be kept in use until questioned by either the State or the Company, or else provision could be made for periodic revision of the percentages. (9) The term cost to include interest on the investment and fixed maintenance charges as well as expense of conducting transportation.

Such a plan conforms to the theoretical requirements and once the principles are established can be put into effect with no more work than is required in the present system or even in the equal mileage division. The greatest expense is involved in the physical valuation of the railroad, but there is a probability that part of the states through which the road runs will be making such valuations in the near future for purposes of taxation or rate determination. Most of the operating records required are now prepared by the railroad company for its own uses and the remainder could be easily obtained from disbursement vouchers of the company. The chief disadvantages lie in the expense involved and in the possibility of error. However, important as these factors are they must be solved if the State attempts to pro-rate the revenue of the Illinois Central between the charter and non-charter lines item by item. The State must find some method which is both scientific and practicable and until it does any court would be doing an injustice to the railroad to order the adoption of any general plan radically different from the existing arrangements. An old German legend says: Wer A sagt muss auch B sagen and since the State has questioned the Company's division it is, to use a slang phrase "up to it" to make good with a better plan, which as indicated above, cannot be done without considerable difficulty and expense.

While the cost of service method of pro-rating is the theoretically correct one it is also possible to adopt value or utility of service as the criterion without too great a disregard of the strict theory, provided the basis or standard of utility is just to both parties- all divisions of the railroad. It is this provision, however, which presents the greatest difficulty.

In ordinary rate making and actual pro-rating between foreign railroads each party is supposed to be strong enough to look out for his own interests, at least that is the theory of laissez faire government, and the price, rate or pro-rate paid may be regarded as the utility of

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In the world of affairs the economic and social disadvantages connected with the determination of railway rates on cost of service have prevented the general adoption of that method and while it is true there is also true, though to a less degree, in the determination of system pro-rates. The discussion in the pages immediately preceding this one has emphasized the fact that a cost of service method of pro-rating that is theoretically correct is impossible; that any practical methods are incorrect; and that any arrangement which is both scientific and practical involves very considerable expense and presents many difficult accounting problems. Accordingly, it may be well to follow in the foot steps of the business world and see how far commercial practices may be adapted to the question at hand.

For the purposes of this discussion the value of service doctrine may be stated-as-the-utility expressed in a somewhat different manner than it was earlier, viz. revenue derived by a carrier represents that portion of the increased place utility resulting to the article from movement by the carrier which is received by the carrier. The effort of every traffic manager is to obtain for his road as much as possible of this increased place utility and rates based on charging-what-the-traffic-will-bear are the result of the interplay of competitive and monopoly forces. As seen in the discussion on page 17 the ideal or goal towards which the value of service doctrine tends is for that state in which the railroad will obtain the total place utility of each article. Accordingly, the theoretical scientific standard of distributing system rates according to the value of service doctrine is as follows: Assign to each division of the railroad the place utility added to the article by passing over the division. Where the carrier receives only a part of the total place utility its revenue should be proportioned among the various divisions as the utility resulting from movement over the particular division/ bears to the total utility resulting from movement over the whole railroad. Where the total utility of-the- be-

is 48
longing to the railroad and its divisions ~~the~~ ~~are~~ ~~associated~~ it is,
of course, necessary to estimate the influence and the worth of the
value of service method of distribution depends upon the accuracy with
which that place utility can be estimated.

Before proceeding further with the theoretical discussion it may
be well to see how the results are obtained in the practical railway
world. Take as an illustration an inter-line rate to be pro-rated be-
tween two railroads, viz. the Union Pacific and the Northwestern. As-
sume the rate in question to be on wool from Laramie, Wyo., to Chicago.
Also assume the following prices and costs: Wool at Laramie 30¢ per lb.
at Omaha 30.52¢ and at Chicago 31¢; through rate Laramie to Chicago
100¢ per cwt.; minimum train expenses, etc. 10¢ per cwt. for the Union
Pacific and 12¢ for the Northwestern.

Under the given conditions the wool shipper cannot pay more than
100¢ per cwt. and for our purposes that amount may be regarded as the
total place utility given the wool by moving it from Laramie to Chicago.
The two railroads are able to fix a rate which gives them all this
place utility. The question now is, what determines the pro-rates
established between the two roads? If no through rate were in existence
and the Omaha price remained the same the maximum the Union Pacific could
obtain would be 52¢ per cwt. and the maximum for the Northwestern
48¢. However, the wool is placed in a through car and is shipped di-
rect from Laramie to Chicago without change at Omaha. In this case the
amount of the pro-rate will depend on the relative bargaining abilities
and comparative economic strength of the two roads. Normally, the
Northwestern cannot carry the wool below a pro-rate of 12¢ and will be
willing to carry it for 13¢ rather than lose the business; On the other
hand the Union Pacific will carry it as low as 10¢ rather than not
carry it at all, but cannot go below 10¢. The pro-rates will be estab-
lished somewhere between these two extremes, probably corresponding to
the difference in price of wool at Laramie, Omaha and Chicago.

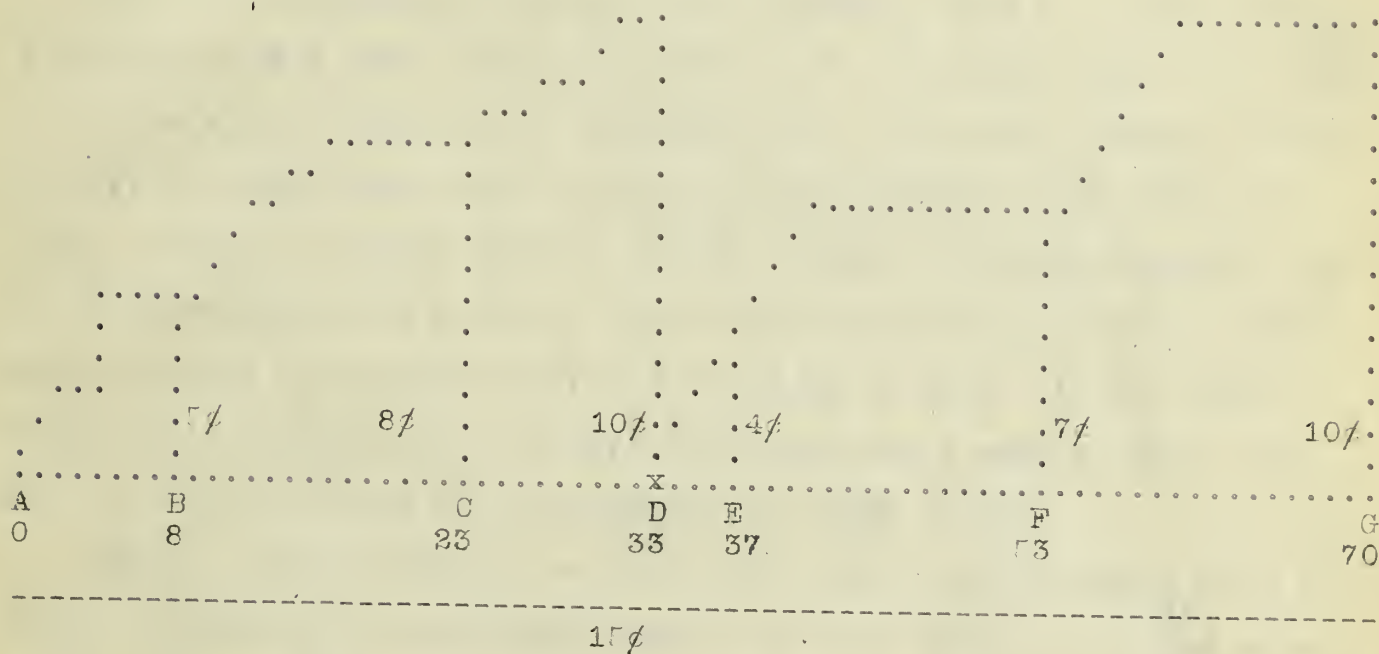
Since wool-shippers, Union Pacific Ry. and Chicago and Northern Ry. are independent economic units competing with other economic units all over the country and the world the rates and pro-rates fixed by them may be assumed to represent the working out of natural influences. Each is seeking its own interests and is not directly controlled by any of the other factors. Such conditions cannot be carried over to our miniature railway commonly termed a division or subsidiary road. Herein lies the chief difficulty in establishing system pro-rates according to the value of service doctrine.

The crux of this statement is apparent. According to the legal and accounting fiction each subsidiary road is an independent entity capable of carrying on all transactions pertaining to the whole; in practice this fiction does not exist and the various roads are controlled actually, though perhaps not according to the legal fiction, by one and the same interest. Take the Chicago, Madison and Northern Ry. and the old main line of the Illinois Central proper. The Illinois Central Railroad Company owns both in fee simple; it pays all expenses and receives all revenues; all net earnings go directly into its treasury; the rates are fixed by the same traffic officer; the operation is under the supervision of the same General Manager; the amount of the revenue pro-rated to each line is determined by the same accounting officer; all employees are directly or indirectly responsible to common executive officers, who, in turn, are responsible to the shareholders. It makes no difference whatever to the latter (omitting reference to the charter tax) whether 99.9% of the revenue is credited to the charter line and .1% to the non-charter line, or the reverse. In either case the gross revenue of the system is exactly the same. To use legal terminology, the subsidiary road, although still a separate entity is in the position of an infant or an idiot, i.e. incapable of performing a legal act in its own right.

This being the case, it would be absurd to claim that officers of one subsidiary road who at the same time are officers of the common corporation or even officers of the other subsidiary road or roads, are in a position to determine what the utility of a particular service is to that road. In the Union-Pacific-Northwestern illustration the traffic officers of the two roads are independent and each acts in the interest of his own corporation. But how can the chief traffic or accounting officer of the Illinois Central figure out the utility of a particular service to the CM&N; figure out the value of the corresponding service to the I.C.R.R. proper; compare the two and then bargain with himself as the representative of the CM&N whether as representative of the former he will allow himself as representative of the latter 67% or 63% of a joint rate? Even if the officers of the subsidiary roads were untrammelled by prejudice and there were no overlapping of duties the problem would be almost impossible to solve accurately. Therefore, it is fair to assume that anything short of a thorough examination of every pro-rate on the system by a board of competent and unbiased traffic experts, which, of course, would be utterly out of the question, that unless something of that nature could be done, rates should not be determined by influences other than those of the business world.

Is the latter possible? The answer is in the affirmative. Every through rate, or practically every one, is represented by two or more local rates covering exactly the same route, providing for the same service, based on the same classifications, as a general rule, and otherwise corresponding to the through rate. These local rates are the result of strictly economic influences since it is the assumption of the traffic department that every rate quoted in the tariffs is there because traffic is moving on that rate or may move at some future time. The theoretical considerations involved in the use of local rates may be considered next.

For purposes of illustration let us examine the diagram given below. On the horizontal line A-G A, B, and C are stations on the railroad A-D, D is a joint station, and E, F and G are stations on the road D-G. The horizontal lines represent local rates, while the through rate is represented by the dash line below the figure.



A piece of freight^X moving from A to D will receive an increase in market price equal to 10¢, i.e. the difference in price level between A and D cannot be greater or less than 10¢ for any length of time. If the market price at D is more than 10¢ higher than at A goods will move until the level be restored; if less than 10¢ goods will not flow. D and G consume the X goods of A; G produces some itself, D does not. The rate on Y goods or goods of Y class moving from D to G is also 10¢, and both X and Y goods are of the same general class and move at the same rate. The market price of X goods is 15¢ at A; 20¢ at B; 23¢ at C; 25¢ at D; 29¢ at E and 32¢ at F, but only 30¢ at G. No through rate is in force between A and G. For sake of convenience let us assume

that market prices at A to G represent the total place utility of the article X at those places. When X moves from A to B a place utility of 3ϕ is added as compared with B A; at C the difference is 8ϕ and at D it is 10ϕ . In other words the total place utility added to article X in going from A to D is 10ϕ and since the rate just covers the increase in place utility the road A-D gets all the increase in place utility. Since road A-D handles all the business itself there is no question of distribution of revenue.

The same principle applies to any shipment of Y or X goods from D to G or of X goods beyond D as far as F. Take the case where shippers from A send goods to F. Road A-D gives the goods a place utility of 10ϕ ; road D-G gives them a further place utility of 7ϕ , while the total increase in place utility is 12ϕ . Since the shipment moves on local rates each road gets the total place utility added by the movement over its line, viz. 10ϕ for A-D and 7ϕ for D-G. If the total added place utility were over 17ϕ the roads would ~~get~~ divide the revenue they received in the proportion of 10ϕ to 7ϕ .

After a while shippers at A find that they could compete at G if a rate of 15ϕ were established between the two points, i.e. ¹⁵ 20ϕ at A plus 15ϕ transportation, gives a total of 30ϕ just equal to what it costs producers at G. However, the sum of the local rates is 20ϕ . Two methods of obtaining this additional traffic are open to roads A-D, D-G

(1) They can reduce all the locals from A to D and from D to G, e.g. to 4ϕ , 6ϕ , 8ϕ , 3ϕ 6ϕ and 7ϕ respectively, making the sum of the locals equal to 15ϕ . Supposing this were done. (In moving X goods from A to G a place utility of 8ϕ) The total place utility of X at D is now 8ϕ more than at A, of ^X 7ϕ more _{at G} than at D. Each road gets the total of the changed place utility earned by it. There is no change over what existed when the 20ϕ rate was in force. (2) The locals are kept at the same figures, but a through rate of 15ϕ is established. How is the

new pro-rata to be ascertained. If our theory is right each road should share in the proportion that the utility it renders bears to the total utility rendered. To use a somewhat homely illustration the shipper at A who uses the 15¢ rate is getting a bargain in that he is now getting for ^{15¢} 20¢ what formerly cost him 20¢. On a shipment from A to D he pays 10¢ and gets 10¢ worth of ^{place} utility; on a shipment from D to G he pays 10¢ and gets or is assumed to get 10¢ worth of place utility if he make the shipment. Both local rates are equitable. What is the utility rendered? The mileage is as 33 to 37, but does he get one eighth more utility in moving his goods from D to G under the ~~old~~ local than from A to D? The rate is exactly the same and the utility ^{is} just the same. Nor is the utility altered when the two rates are combined in one. From the shipper's standpoint it might seem that there was ~~only~~ a utility of 15¢ from D to G, but the same thing would be true of the rate from A to D. The mere fact that the shipment originated on A-D does not mean that that road performs a greater service than D-G.

Now what is true in the illustration is true of both through and local rates in the railway world. It is a fundamental axiom of economics that prices in two places can never vary permanently by more than the difference in transportation. For ordinary purposes the increased market price due to transportation may be regarded as the increased place utility resulting from the transportation. Moreover, local rates may be regarded as the ~~utility~~ what the carrier believes to be the utility rendered in transporting goods over that distance. He accepts less only through compulsion. If a railroad could obtain as high rates for its through traffic as for its local it would do so, but it cannot secure business at such rates and rather than lose it entirely it is willing to reduce the through tariffs. Therefore, it seems perfectly reasonable to accept the local rates as the carrier's expression of what ^{it} he considers the transportation over that particular piece of track

This view is in direct opposition to the position of the State that every mile of track performs the same service. The difficulty with that contention is that it disregards the essential fact in railway rate making. Rates are prices and prices are determined by or measured by utility. This argument has already been discussed fully and need not be gone into further, except to state that the entire structure of economic theory as it relates to prices is established upon value. The perspective of the State measures the service not by its place utility, but in accordance with physical standards. The operating department of a railroad does not take into consideration the value of the goods it handles, except in isolated instances; a carload of silk is no more difficult to move than an equal weight of waste paper; a mile of track costing \$3,000,000 is no more useful to the department than a mile costing \$25,000 providing trains can be handled over them with the same facility. The traffic department, on the other hand, is not interested primarily in the distance or in the character of track except as it fixes the minimum charge for the service; difference in values or prices in different communities is the important factor to it. Mr. Boys in advocating the principle that each mile of track performs the same service adopts the operating point of view, but in a consideration of rates, in a study of values, such a contention is without foundation.

The argument in regard to value of service method of determining rates may be summarized as follows: The principle underlying value of service is that rates should conform to the place utility added to an article by transportation. In ordinary business transactions the amount of the rate is the result of an interplay of economic influences. There is no such direct interplay of economic influences in the establishment of system pro-rates, but a close approximation is the carriers estimate as to utility of the service performed, as expressed in local

rates. Where the sum of the local rates is in excess of the through rate the utility of the service rendered by the through rate corresponding to the service rendered by the local rate may be regarded as bearing the same proportion relation to the local utility of the service rendered by the through rate as the utility of the service rendered by the local rates bears to the local service rendered by the sum of the local rates, i.e. (the through for a given distance) a through rate should be pro-rated to the various divisions a division or subsidiary road in the proportion that the local rate for that division or subsidiary road bears to the sum of the local rates.

The application of the principle is comparatively simple. Suppose the through rate from Chicago to New Orleans is \$1.00 for a certain class of freight, while the local rate from Chicago to ^{Cairo} New Orleans is 52¢, the bridge arbitrary 2¢ and the E. Cairo-New Orleans local 66¢, then the through rate should be assigned to the three divisions in the ratio of 52-120ths, 2-120ths, and 66-120ths. The greatest difficulty to be found is the ascertainment of the correct rates, but once that is done the remainder of the work is the mechanical work of finding the per centages. Moreover, the number of rates which fluctuate is comparatively small and the task of keeping the percentages in accordance with the rates would be slight. Finally, all the local and through rates are filed with either the State or Federal Railway Commissions and they are, therefore, a matter of legal record. Accordingly, no change in the per centages could take place in the company's offices which could not be checked by the government, thereby preventing fraud or juggling of the per centages.

In the preceding pages it has been necessary to go into the matter of the theoretical and practical considerations of system pro-rates in considerable detail and before proceeding further the points brought

but so far may be reviewed briefly:

- (1) Nominal transactions of exchange between legal or accounting divisions established for particular purposes ~~are governed~~ should be governed by the fundamental principle of value and price.
- (2) In the absence of economic friction prices are based on the cost of production; in all cases prices vary between the upper limit of utility to the consumer and the lower limit of cost to the producer.
- (3) Railway Rates are prices charged for carriage of commodities and persons, while transportation is the creation of place utility.
- (4) In practice railway rates are based either on Cost of Service or Value of Service, but the latter is merely a modification of the law of price.
- (5) Considered from the strictly theoretical standpoint railway rates should be based on Cost of Service, but the Value of Service idea is so important that that principle can be used in establishing a scientific system of system pro-rates.
- (6) A division of system rates on the basis of equal mileage although simple in execution is not scientific and its application to the Illinois Central tax question would be inequitable.
- (7) Modifications of equal mileage divisions are more equitable, although still unscientific.
- (8) A scientific division of system rates according to cost of service can be made, but it involves a very heavy expense and presents grave accounting objections.
- (9) A simple and inexpensive yet scientific division of system rates can be made in strict accordance with the principles of Value of Service. This method is the division of through rates in the proportion that a particular local bears to the sum of the locals.

It is not the purpose of this monograph to advocate any particular method of system pro-rating. The disadvantages and advantages of the various methods have been analyzed, and it appears that only two of the plans satisfy the requirements of both practicability and scientific correctness, viz. the per centage method outlined on page 1 ^{now in use} and the local rate method outlined on page 185. Other methods ~~are~~ practicable, although not scientific. Between the two plans suggested there is little choice in the ^{matter} question of accuracy and facility of use once placed in operation. In the matter of expense, however, the advantage is decidedly in favor of the local rate plan.

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